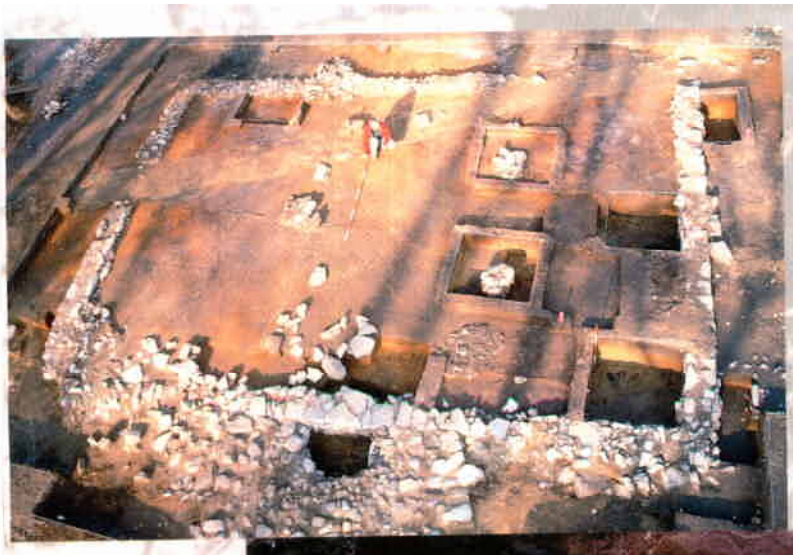
IN THE NORTH COUNTRY

The Archeology and History of Twelve Thousand Years at Fort Drum

By Georgess McHargue



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The Archeology and History of Twelve Thousand Years at Fort Drum

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Dedicated to the people of the United States of America, whose laws and tax dollars were responsible for preserving the record of this part of their history.

ACKNOWLEDGMENTS

This book was written with the assistance of many individuals and government agencies. My thanks are due above all to Mr. Eric Hertfelder, Executive Director of the National Conference of Historic Preservation Officers, for his administrative help and support at every stage of this undertaking and to Dr. Constance Werner Ramirez, Historic Preservation Officer, Department of the Army, whose vision and enthusiasm generated this project. My thanks also go to Mr. Lloyd Chapman of the United States National Park Service, the U.S. Army Legacy Project's Dr. David Guldenzopf, and to Mr. David Fuerst for providing documents, original illustrations, information, useful comments, and technical review. None of this work could have been done without the support of post commanders Major General David C. Meade, Major General Thomas N. Burnette, Jr., and Major General Lawson W. Magruder, III, together with Public Works Directors LTC Edward T. Moore and LTC Michael T. Ostrom, Mr. Brent Moss and Mr. Jim Haynes, chiefs of the post's Environmental Division, and Mr. Richard LeClerc, Chief of the Natural/Cultural Resources Division. Finally, Dr. Adam King, Staff Archeologist at Public Works, Environmental Division, with the assistance of Ms. Cait Schadock, also of the Environmental Division, demonstrated both tenacity and ingenuity in seeing this project through the printing and publication process.

I received willing assistance on technical matters from Dr. John Hotopp of Louis Berger & Associates. Ms. Dawn Rusho served very ably as my local research assistant. Ms. Elizabeth Linder of the Jefferson County Historical Society provided me with several useful historical illustrations. My maternal uncle, Mr. Frederick Boomhower of York, Pennsylvania, kindly gave me a taped interview regarding his recollections of farm life in upstate New York and specifically on life in the village of Evans Mills in the late 1920s. I am also grateful to Dr. Thomas Schaeper of St. Bonaventure University, St. Bonaventure, N.Y. for allowing me to read several relevant chapters from his forthcoming book on the life of Jacques-Donatien Leray de Chaumont, of which details are given in the section containing Suggested Readings, and to Dr. Robert D. Kuhn of the New York State Office of Parks, Recreation and Historic Preservation's Historic Preservation Field Services Bureau in Waterford, N.Y. for providing me with a copy of his paper entitled *Recent CRM Contributions to Iroquoian Archeology in New York State.* Mr. Martin Dudek generously allowed me to use some of his personal photographs, taken while he was a crew member on several of the Fort Drum historic sites. Finally, I am grateful to Mr. Dudek and other archeological staff members of Timelines, Inc., of Littleton, Mass. for providing me with background reading and answering many of my questions on arcane matters of history and prehistory. Naturally, none of the above-named individuals is responsible for any errors of fact or interpretation that may have crept into this manuscript.

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All illustrations and photographs in this book were originated by Louis Berger and Associates, Inc. unless otherwise noted.

FOREWORD

THE FORT DRUM MILITARY RESERVATION OCCUPIES 109,176 acres of land in Jefferson and Lewis counties in northern New York State. Watered by the Black River on the south and the Indian River on the northwest, the post was established in 1908 as a training facility and was known first as Pine Plains, then as Pine Camp. In 1951, it was renamed Camp Drum after Lt. General Hugh A. Drum, commander of the First Army, and in 1974 became Fort Drum.

Ten years later, in 1984, Fort Drum was named headquarters for the 10th Mountain Division (Light Infantry), which, for the first time since its participation in the World War Two European theater, was to be reactivated. This change entailed the construction of range improvements and a new cantonment area, in addition to the original cantonment, enlarging the cantonment area in the southwestern sector of the post to 6,700 acres. The Main Impact Area for artillery fire occupies 19,275 acres in the post's northern and central areas. Fort Drum is thus the largest U.S. Army post in the Northeast.

The arrival of the 10th Mountain Division entailed a massive expansion of the post's physical facilities, and it was clear from the outset that many of the historic farmsteads, villages, and industrial sites contained within the post's boundaries, and abandoned since their purchase by the Army, would be destroyed or adversely affected by the new construction. Since numerous state and federal laws, as well as the U.S. Army's own regulations, forbade the destruction of prehistoric or historic resources without evaluating their eligibility for listing in the National Register of Historic Places, the U.S. Army, acting through the National Park Service's Mid-Atlantic Region, sent out a request for proposals to provide cultural-resource management services in July, 1985, and ultimately awarded a multi-year contract to the Cultural Resource Group of Louis Berger & Associates, Inc., a private consulting firm based in East Orange, New Jersey (hereafter referred to as LBA). Between 1985 and 1991, Louis Berger & Associates completed thirty-four task orders under the basic agreement, comprising services under the headings of cultural-resource inventory, evaluation, recording, documentation, and preservation planning.

The Fort Drum archeology project as a whole was directed by Louis Berger's Dr. John Hotopp. The LBA archeologists who served as project managers at various times were

WHAT'S PREHISTORIC?

The terms prehistoric and historic are confusing to many people. That is because history does not begin on a particular date, like the Christian Era (also called the Common Era) or the signing of the Declaration of Independence. History is in fact the use of written records of events, and writing evolved at different times in different places. Thus, approximately 5,000 years ago, parts of the Middle East where records were kept on clay tablets had already entered the historic period, while most of the rest of the world was still in the prehistoric. By the 1500s, most of Europe, Africa, and Asia had entered the historic period, but written records in the Americas were confined to the Aztecs and their predecessors the Maya in Central America and Mexico. Thus for northeastern North America, prehistoric means any cultural development before the arrival of the European explorers in the sixteenth century. It should be noted, however, that prehistoric cultures are just as complex, varied, and innovative as historic ones. The only difference is in the existence of written records as opposed to oral histories or myths.

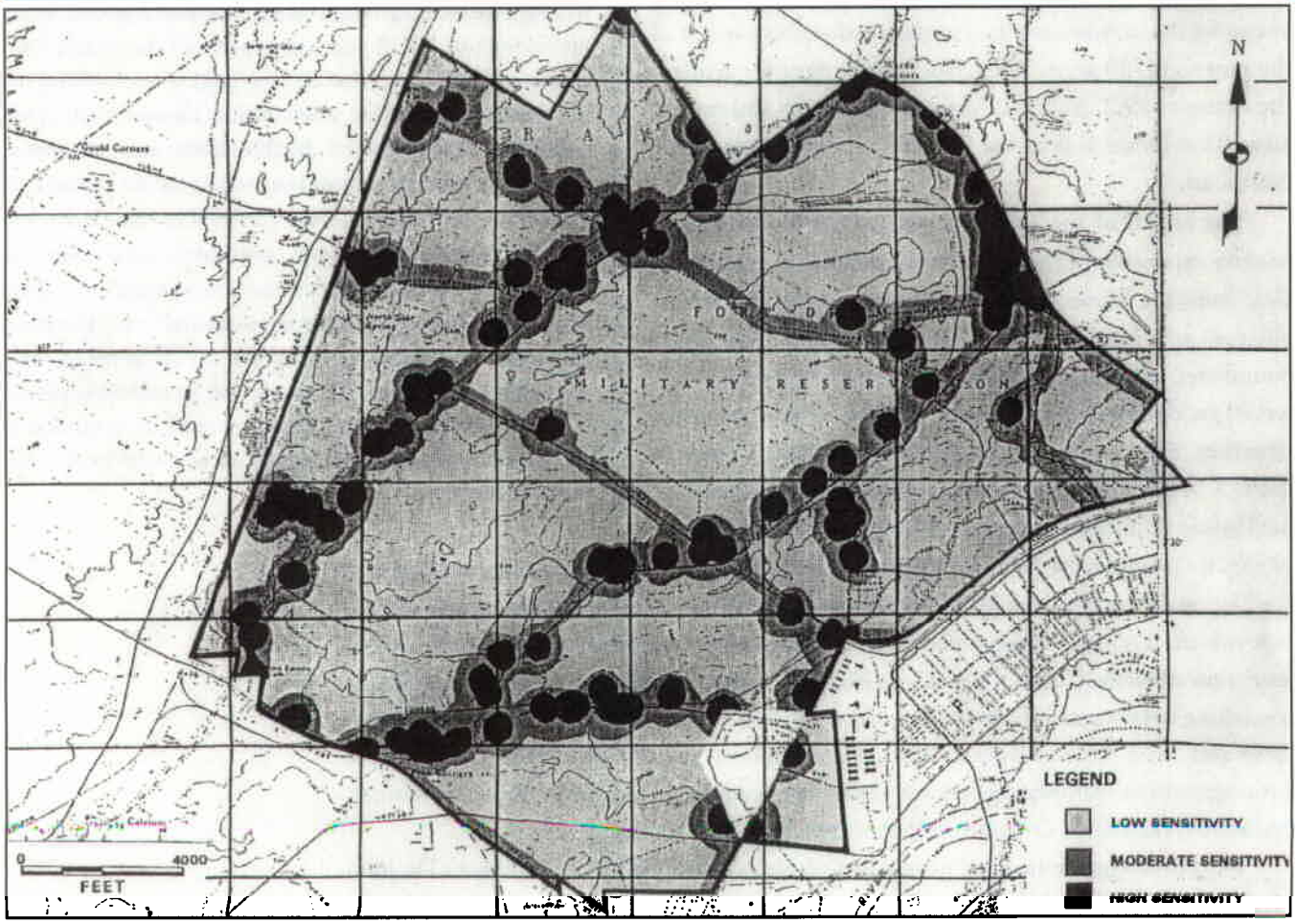
Robert Foss, Adrian Anderson, Michael Fokken and Alain Outlaw. In addition, Dr. Amy Friedlander served not only as Project Historian but as Project Manager through the important last stages of report preparation. Ingrid Wuebber and Suzanne Etherington accomplished much of the extensive research that went into the project. Materials Specialists who worked throughout the project were Marie Lorraine Pipes (small finds/architectural materials and faunal materials), Mallory Gordon (curved glass), and Dr. Meta Janowitz (ceramics).

Richard Affleck served as Project Archaeologist during the project's more recent period and was responsible for several final reports. Charles LeeDecker also played an important supervisory role. Henry Holt and Timothy Sara worked both as field supervisors and on report preparation. Several of the final survey reports were prepared by Philip Waite, who also supervised the field crew at many of the Fort Drum sites. In all, there were several dozen crew members and other personnel who worked on the project over the years; their names are unfortunately too numerous to list here.

ARCHEOLOGICAL TESTING

Archeologists, faced with a possible archeological site, do not use chemical or biological tests, they dig holes. These holes, called test pits, are spaced in such a way that they take a statistically valid sample of the predicted site in order to find out (1) whether there is in fact a site present, (2) the age and nature of the site, (3) its spatial limits, and (4) whether it is scientifically significant in terms of the relevant legislation. Only when test results are positive is the site eligible for complete excavation, and then only if it is threatened with destruction or severe damage by natural or human agencies. Otherwise, and in most instances, avoidance of a "sensitive" area is the preferred course of action.

FIGURE 1 Predicted locations of historic properties in the Fort Drum cantonment: An example of an archeological model.



Louis Berger's survey located 390 historic and prehistoric sites, other than those contained in the historic villages. Obviously, it would have been impossible in terms of both time and money to evaluate, let alone perform complete, scientific excavations on every one of these 390 sites. Instead, the decision was made to test those sites that were in actual danger of being damaged by proposed construction activities and, when these tests showed that significant resources might be lost as a result of those activities, to perform complete excavations only on those that promised the most scientifically important results. For this reason, the archeological research at Fort Drum was specifically intended to comply with relevant laws and regulations and not to recover all or even most of the archeological materials to be found within the boundaries of the Reservation. Most of the farmsteads that were selected for further testing were in the new cantonment area, since that was where the earliest settlement had occurred. Work on Camp Drum No. 1, the sixteenth-century Indian village site, was done in order to stabilize the damage done by previous, non-LBA, excavations.

In the terms used by most American archeologists, there are three stages or phases of an archeological project. In Stage I, the reconnaissance and survey stage, researchers first search the written records to determine whether there is a known site on the property. If not, they need to find out whether there is any historic record of construction that is of an age and type that might qualify it for listing on the National Register of Historic Places. (In order to be eligible for the National Register, a site usually must be at least fifty years old and meet one or more of four criteria of significance that spell out the reasons why a site might be important for understanding the historic or prehistoric past. The criteria are: association with a person or event that is of significance to the nation's history, design or construction elements that are significant to the history of art or technology, and potential to contain information about the past unobtainable elsewhere.)

If there is a possibility that the area may contain a prehistoric site, this is assessed by applying previous information about where sites are likely to be *(see Figure 1 and the inset on this page)*. If there is any evidence that the site once saw historic development or might have been attractive to prehistoric peoples, archeologists actually walk over the area to evaluate it and see whether the site is still likely to be there, rather than having been destroyed by erosion, earth-moving activities, vandalism, or subsequent construction.

If ground disturbance is minor, archeologists may dig a series of small shovel test pits to see whether there is indeed any sign of past human activity on the site. If the answer to this question is yes, the project enters Stage II, often called site examination. In this stage, more test pits (or test units) are dug, in order to confirm the site's existence, define its boundaries, depth, and cultural affiliation, and, if possible, to date it in terms of the broad periods of history and prehistory. Another task at this stage is to assess the site's eligibility for the National Register. In the final stage, Stage III, or data recovery, the site is more intensively excavated in order to recover the information it contains. Data recovery is

IF YOU WERE A SITE, WHERE WOULD YOU BE?

When archeologists try to determine whether a given piece of land is likely to have a prehistoric site on it, they use a combination of experience, judgment and prediction. Prehistoric peoples did not camp or build just anywhere. They had reasons that were, in general, not very different from the reasons we might use in picking a good place to camp out with the kids: Is the site near fresh water? Is the ground level and neither too wet nor too rocky? Add to these an understanding of what kinds of resources might have been attractive in what seasons, and you are on the way to creating a model for site prediction. Part of the model might read, "Winter camps in the uplands face south," or, "The fishing is good where two rivers run together." Modeling is also used to answer questions about sites from the historic period, because written records are often incomplete. Prehistoric work at Fort Drum was guided by a computerized locational model produced under subcontract to LBA by archeologists at the University of Massachusetts at Amherst.

usually part of a plan to "mitigate" or lessen the damage done by a construction project that cannot be redesigned to avoid the site or preserve it in place. Special scientific studies such as radiocarbon dating may be done at this stage.

In accordance with these procedures, LBA's first action was to divide the 6,700 acres of the new cantonment into a mosaic of small areas with differing potentials for containing significant sites. This task was carried out with the assistance of a computerized geographical information system or GIS. The task was made easier by the fact that the very large majority of historic sites were documented and could be located from either historic maps or aerial survey. Then, before the Stage I survey was begun, all of the sites that were not threatened by the proposed construction were classified as "preserved but unevaluated." The Stage I survey, which ultimately covered 11,189 acres, identified the approximately 390 individual archeological sites previously mentioned, five villages, two cemeteries, one industrial structure (a lime kiln), and a few prehistoric campsites. At the end of Stage I, another round of elimination was performed, dropping from consideration all the sites that were heavily disturbed or otherwise appeared not to contain information other than the arrangement of their building elements, which had already been documented in Stage I. This left 149 of the 390 sites to be investigated at the Stage II level. Of these, three ultimately went to the more intensive level of Stage III excavations. In addition, five archeological village locations, twelve historic farmsteads, one lime kiln, and two prehistoric site locations were designated as protected, off-limits areas (subject to a determination as to whether they are eligible for the National Register).

This book is a popular account of the results of this prehistoric and historic archeological program, one of the most extensive ever undertaken by the U.S. Army.

FIGURE 2

COURTESY OF MARTIN DUDEK

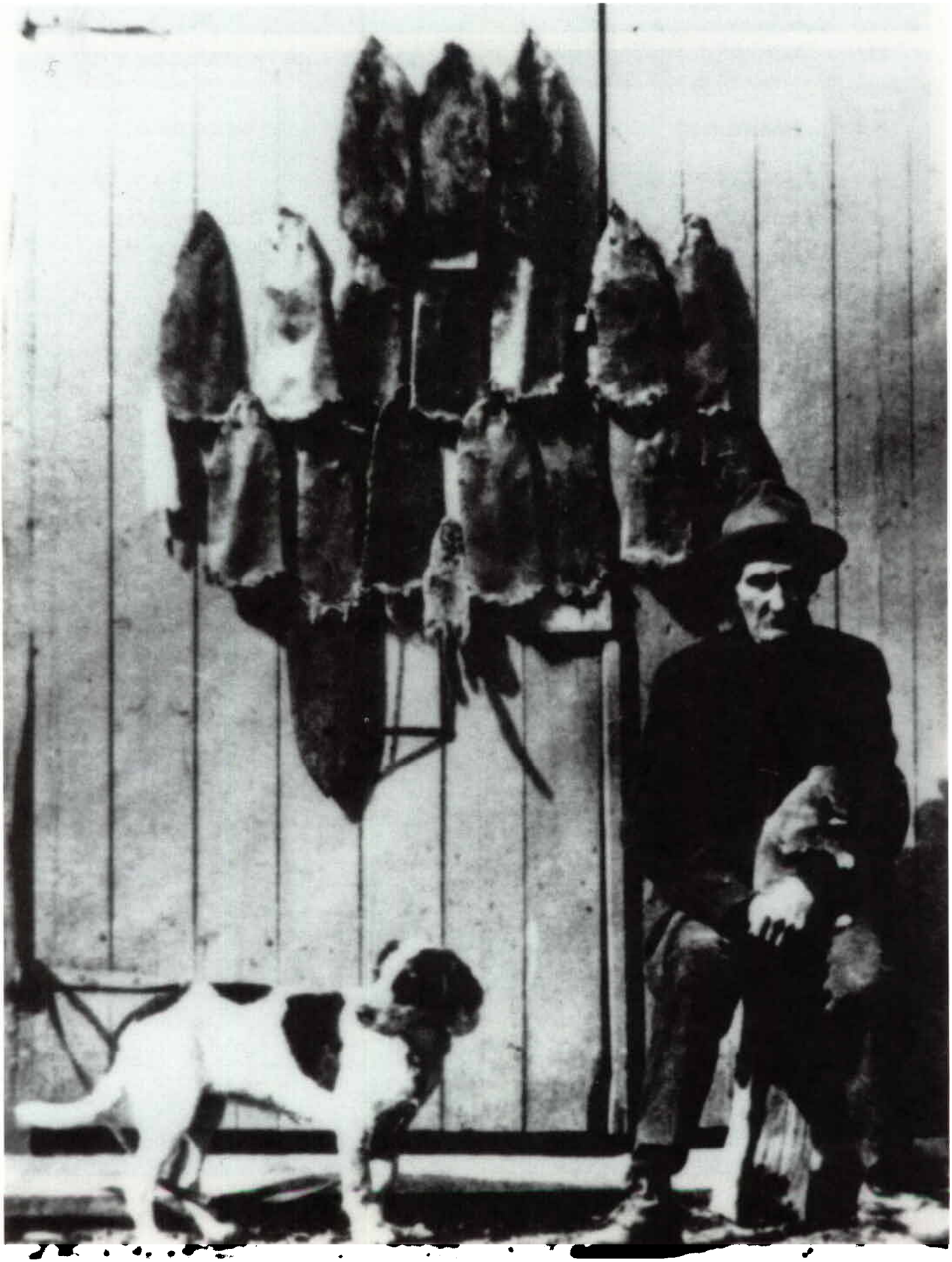
This aerial photograph clearly shows an abandoned building foundation and possible cellar hole. Finding such archeological features on foot could take many days.

FIGURE 3 A Chart of Fort Drum Prehistory

Time	Stage/Period	Phase	Component
1580	*Ethnohistoric*	St. Lawrence Iroquoians	Military Road
1534			
	Late Woodland		Camp Drum #1
1200		Pillar Point	
1000	*Middle Woodland*	Undefined	
750			
		Undefined	1015
500		Point Peninsula	
350		Canoe Point	1004, 1015 1017, 1018
A.D. B.C.	*Early Woodland*	Long Sault Island	
500	*Transitional*	Muskalonge Lake	1025, 1026
1000	*Late Archaic*	(Lake Ontario)	1006, 1009 1015, 1016 1020, 1026
4000	*Middle Archaic*		
6000	*Early Archaic*		
8000	*Late Paleoindian*	(Lake Admiralty)	1026
8500	*Early Paleoindian*	(Lake Frontenac) (Lake Iroquois)	1025
9800			
10,000			

(Refer to discussion on pages 1 through 13.)

(modified after Fuerst and Abel n.d.)



PART ONE

The Two Frontiers

TWICE IN HUMAN HISTORY, THE "NORTH COUNTRY" (THAT PART of New York State that lies north of the Genessee Valley and west of the Adirondacks) has been a frontier. The *second* time was when European trappers, traders, and settlers began arriving in the 1700s. The first time was about 12,000 years ago, when the glaciers of the last Ice Age melted away and the first human beings made their way across a landscape that would hardly be recognizable to the area's modern inhabitants.

During the Ice Age, about fifteen thousand years ago, ice sheets covered all of what is now Canada and the northern half of the United States. Even though it was invisible beneath the ice, the form of the land was dramatically different from what it is today. Among other things, the presence of this vast burden of frozen water, up to a mile thick in some places, meant that sea levels were lower than they are today. Neither Long Island, nor Nantucket, nor Martha's Vineyard was an island, and there was no cape at Cape Cod. All along today's east coast (and other world coastlines as well) the beaches lay many miles further out than they do today, while the Great Lakes region was also ice-covered.

At least as early as 26,000 years ago (before present, or B.P.)

First human beings migrate on foot from Siberia to North America, using a land bridge laid bare by the low sea levels of the Ice Age.

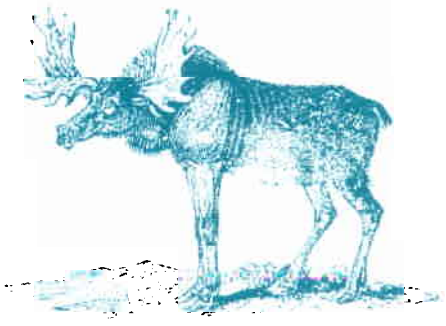
But as world climatic conditions grew warmer, the glaciers slowly retreated. This was not a passive process. The ice and melt-water ground and gouged at the land surface, wearing down hills, cutting valleys, depositing tons of gravel and rock that had been trapped within the ice and carried along, sometimes hundreds of miles from its point of origin. Waters from the melting ice front carved out river valleys, eroded land surfaces, and formed vast glacial lakes along major river valleys such as those of the Ohio, Hudson and St. Lawrence.

As the ice slowly receded, the land along its edges was at first bare and treeless, resembling the arctic tundra, and crossed by many little streams. Later came a rather parklike landscape dotted with spruce trees. Still later, the fully developed forest of evergreens became mixed with hardwoods as is typical of modern times.

About 10,000 B.P.

In the Near East, the earliest known plant domestication.

The animals that lived near the ice front included some of those that are still found in the far north: caribou, musk ox and moose, bear, lynx and wolf, eagle, ptarmigan and raven. Also present were others that have now vanished from the scene: unfamiliar species of bison, the woolly-coated mammoth, the forest-loving mastodon.



The First New Yorkers

With the game came the hunters and gatherers, the first New Yorkers. Archeologists do not know what these people called themselves, so they refer to them as Paleo-Indians (*paleo* from a Greek word meaning ancient, and *Indian* from a mistake made later by Columbus and others). Many generations before, their ancestors had moved across the Bering Strait, then a land bridge connecting modern-day Siberia with Alaska, and

were now slowly colonizing a world that was as new to them as it would later be to the Europeans.

Archeologists recognize the period of the Paleo-Indian peoples as lasting from about 12,000 years ago to about 10,000 years ago, or years B.P. *(see inset).*

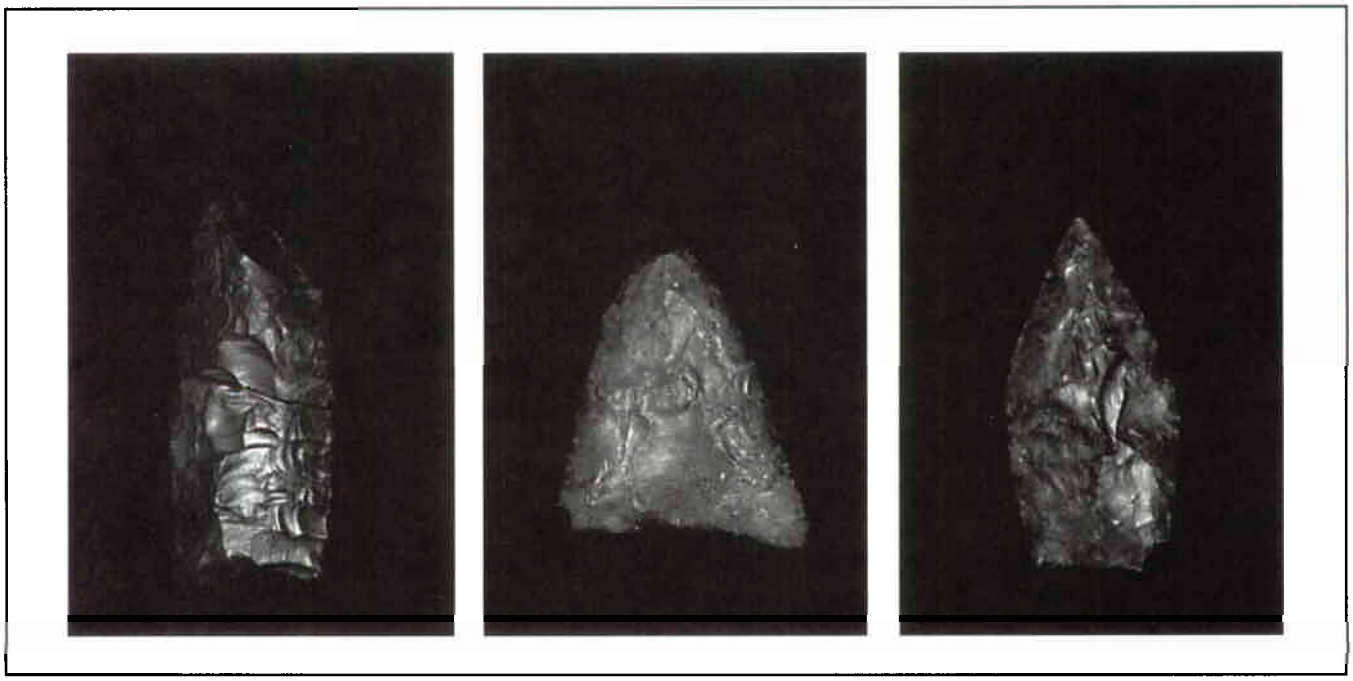
HOW LONG AGO WAS THAT?

It is customary to refer to dates in prehistoric archeology by the abbreviation B.P., for before present. Thus, for example, the year 4000 B.P. is the rough equivalent of 2000 B.C., and 1500 B.P is the equivalent of A.D 500. In discussing the prehistory of Fort Drum, dates will be given in years B.P. However, for the historic period (which begins with the advent of written historic records, in approximately the year we are accustomed to calling 1534 for this area) all dates will be in the familiar A.D. or Anno Domini form.

Like the inhabitants of Siberia, from which they had come long ago, the Paleo-Indians were hunters and gatherers. Their only domestic animal was the wolf-descended dog, which had already found it profitable to cooperate with humans in their mutual pursuit of game. The Paleo-Indians made their tools and weapon points of chipped stone, bone or wood, and their clothing of skins. Very little is known of the shelters they must have built to keep out the fierce winters, or of their beliefs, values, and customs. They did not use fixed settlements, but traveled extensively in search of plant and animal foods in their seasons, using only spears and knives as weapons. It was once thought that the Paleo-Indians depended mostly on large game such as the mammoths, mastodons, and (in the far north) caribou for their survival, but modern archeology suggests this was not the case. Instead, they were the supreme opportunists, rejecting nothing edible, from roots and berries to snowshoe rabbit to haunch of elk.

In terms of archeology, the Paleo-Indians are primarily recognized by their distinctive and excellently made spear points, many of which have a channel or flute running from the base toward the tip. Other stone tools found at Paleo-Indian archeological sites

FIGURE 4



US ARMY PHOTOGRAPH

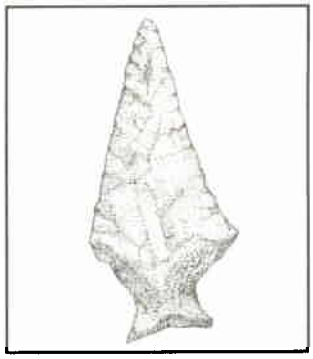
Left: Unfinished Paleo-Indian projectile point recently found at Fort Drum.
Center and right: Points of the Woodland Period, also from Fort Drum.

typically include drills, blades worked on both faces (called bifaces), and various types of scraping tools, probably used in the working of wood and hides. The fact that the stone for these tools often comes from non-local sources underlines their makers' highly mobile life style. Not all types of stone are equally desirable for chipping, so that high-quality material was evidently prized, perhaps even distributed through trade networks.

Paleo-Indian population densities were low. A large territory, up to 300 miles in diameter, was required to sustain the members of a relatively small family band. Very recently, a Paleo-Indian site was found on the Fort Drum Reservation, the first such site discovered in the post's immediate vicinity *(see Figure 4)*. Fluted Paleo-Indian points are also known from nearby Ontario, Canada, Cedar Point in Jefferson County, and Mud Lake in St. Lawrence County.

10,000 B.P.

The Palestinian town of Jericho is already 8 to 10 acres in size, protected by a city wall and a tower.



Susquehanna point

New Developments

In New York State, the Paleo-Indian way of life continued, with little alteration, for nearly two thousand years. Gradually, however, the environment and other factors were changing. The very large game animals had died out or were becoming scarce. Deer and elk moved in where once the caribou had dominated. Forest-loving species such as beaver, mink, and raccoon became more plentiful. Bird life became more varied. Deer, bears, and humans fed on the autumn nuts that fell from oak, beech, chestnut, and hickory trees. Faced with these and other developments, human populations had to adapt themselves to these changes.

The archeological record shows a change in the types of stone tools used, and archeologists have called the period of this change the Archaic, dividing it into early, middle, and late subperiods.

Although none have been found on Fort Drum, in northern New York State, Early Archaic sites (10,000 to 8000 B.P.) have been found to occur beside wetlands, major rivers, and lake shores in lowland areas. The scarcity of Early Archaic sites suggests both that they are inconspicuous and that population densities were still very low.

The Middle Archaic period (8000 to 6000 B.P.) saw an increase in the variety of stone-tool types. In Jefferson, Lewis, and St. Lawrence counties, sites tend to be found in river valleys and on lake plains. In addition to plant and land-animal resources, shellfish and migratory birds began to make up a significant portion of the diet. Scrapers, choppers, adzes, and axes indicate a considerable emphasis on woodworking activities, while the typical stone points were broad and notched at the sides, like the one above.

By the Late Archaic period (6000 to 3700 B.P.), and perhaps beginning in the Middle Archaic, there is evidence that life had fallen into more of a seasonally scheduled pattern. Spring runs of fishes such as salmon and shad marked a time of predictable plenty, when family-based bands probably gathered together by the riversides to fish, exchange commodities, tell stories, greet relatives, arrange marriages, hold ceremonies, and perform other business of the larger community. Berries, acorns, birds' eggs, cattails, eels, and

IS THAT AN ARROWHEAD?

As may be seen from the foregoing discussion of Paleo-Indian tools and weapons, the term arrowhead is not appropriate for this and succeeding periods, which were long before the arrival of the bow and arrow, sometime after 1500 B.P. Furthermore, most of the items casually referred to as arrowheads are far too large and heavy for the purpose. Archeologists prefer the somewhat cumbersome term projectile point, meaning the point of any thrown weapon, whether spear or arrow. A third type of weapon was the atlatl, a throwing stick into which the spear was socketed. Many larger points are neither for spears nor for atlatls, but are more correctly described as knives, since they were attached to wooden handles or hafts and held in the hand rather than being thrown.

About 5000 to 3200 B.P.

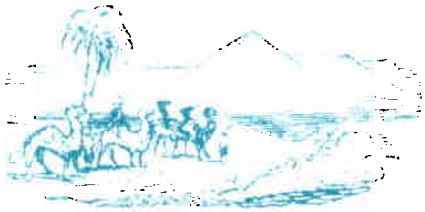
Construction of England's Stonehenge in several phases.

About 4000 B.P.

Agriculture in Central America involves maize, beans, chili peppers, squash, amaranth and serveral fruits and vegetables. Settled villages and pottery are just coming into use.

3600 to 3520 B.P.

Construction of the pyramids of Giza, Egypt. The tallest, the Great Pyramid, rises over 480 feet high.



About 3500 B.P.

In Anyang, China stands the capital of China's first historic dynasty, the Shang. Pottery, bronze and jade artifacts are plentiful and written records are kept.

About 2000 B.P.

Augustus Caesar becomes first Roman emperor.

wildfowl would have been examples of other seasonally available foodstuffs. Ground slate tools make their appearance at this time, as do tools of cold-hammered native copper. During the ensuing Transitional or Terminal Archaic (3700-2700), containers made of the soft, easily worked soapstone also appear, together with the first true pottery known to the area. Archeologists believe that these and other cultural traits had come to the area from the Southeast via the Coastal Plain and the great river highways of the Mississippi and Ohio.

The Woodland Period

The next division of New York prehistory is called the Woodland period and runs from 2700 to 1000 B.P. The availability of pottery greatly increased the people's ability to cook and store foodstuffs for later use, while use of the bow and arrow made game hunting both safer and easier. (This is to say that, if you want to kill a bear or even a buck, it is better to do it from a distance.) Clay tobacco pipes, some of them very finely decorated, also appear in the Woodland period, although stone pipes date as far back as the Archaic. It should be understood, however, that the term "tobacco," as applied to Native American pipe smoking, has always been used loosely, and probably refers to the smoking of a wide variety of fragrant plant materials in addition to or instead of true tobacco (scientific name *Nicotiana tabacum*), which could only have been obtained by trade with southern areas.

Mounds and Earthworks

Early Woodland period stone points in the style called Meadowood are quite commonly found in the Fort Drum area and the comparative frequency of sites suggests that populations were increasing. For the first time, stone and earthen mounds devoted largely or exclusively to burying the dead appear in the archeological record.

From the Early Woodland period on, there are also mortuary sites, some of which evidently contained burials, while others did not. Some of the latter are parts of complex arrangements of earthworks that are now thought to have served for social display. Local "bigmen," influential individuals known for their generosity and/or conflict-resolution skills, would arrange for the building of these earthworks, which served as public places for the community and were probably linked closely to the operation of trade networks.

Pillar Point and St. Lawrence Iroquoian

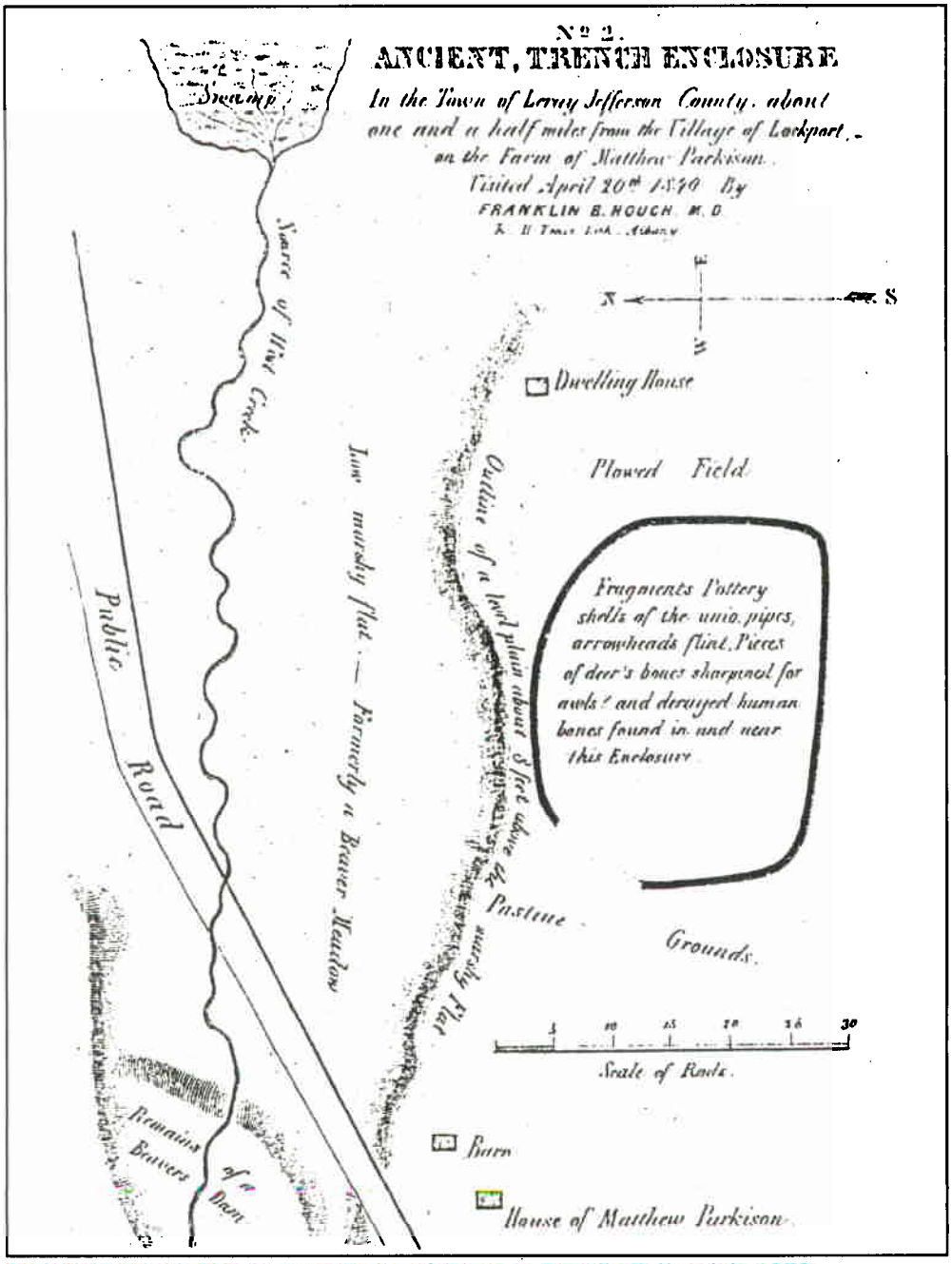
Following the Woodland period in New York State is a final division of prehistory not usually identified in other parts of the Northeast. The Late Prehistoric period is dated 1000 to 500 B.P. or, in more appropriate historic terms A.D. 1000 to 1534, the year when European explorer Jacques Cartier first encountered the peoples of the region, at present-day Montreal and Quebec City. Populations seem to have continued to grow in the area at this time, and one conservative recent estimate suggests that there were as many as fifty-five Late Prehistoric villages in Jefferson County (although no more than a few of these would have been occupied at any one time).

The villages in question would have belonged to the so-called St. Lawrence Iroquoians, who are distinct from, although related to, both the Neutral and the Huron (of Ontario) and the Five Nations Iroquois (the Mohawk, Oneida, Seneca, Onondaga, and Cayuga)

whose territory lay to the south and west. Aside from villages, other, less common, types of St. Lawrence Iroquoian sites may include temporary camps, workshops, ceremonial caches, and cemeteries. For the first time, warfare appears to have been a major consideration in selecting a village site, as evidenced by palisades, earthworks, and ditches. The site called Camp Drum No. 1 is an example *(see below)*.

By far the most striking cultural development of the Late Prehistoric period was the introduction of agriculture, centered on the intensive cultivation of maize (Indian corn), squash, and beans. This was accompanied by use of the so-called slash-and-burn system, in which sections of forest were systematically cut and burned so that the soil could be

FIGURE 5



An early diagram of Camp Drum No. 1, published by Franklin B. Hough in 1850.

1000 B.P. (AD 950)

Height of the Age of the Vikings, when the "Norsemen" in their longships traded and raided as far south as the Mediterranean, as far east as southern Russia, and as far west as Newfoundland.

500 B.P.

A Genoese navigator, sailing in the service of Spain, makes landfall in the Caribbean. Thousands of towns, cities and landmarks (and even the nation of Colombia) will be named in his honor.

fertilized by the wood ashes and thus improved from the point of view of growing crops. Nevertheless, it is clear that fishing, plant gathering and hunting of game animals continued to be very important to this way of life, which was to be expected in an area with harsh winters and a relatively short growing season.

For the first time in the Late Prehistoric, archeologists can see the development of distinctive local cultures, as opposed to broadly characterized sets of general traits extending over large territories and stretches of time. In this part of New York State, the Pillar Point (formerly called Owasco) culture (A.D. 1000 to 1200) can be identified by a shift away from small villages, usually located beside rivers, to larger, more permanent villages in easily defensible locations, usually surrounded by protective palisades. Evidently, it was the custom to relocate these villages every fifteen to twenty years or so, perhaps when the trash heaps became too large and offensive and/or the soil lost its fertility. These moves were often very short—only two or three miles.

It is now believed that the Pillar Point culture developed into the culture of the St. Lawrence Iroquoians more or less without a break. The St. Lawrence Iroquoians were skilled in many crafts, and the artifacts they left behind them are considered by many to be unequaled in the Northeast. Their pottery bowls, with their high-collared rims, scalloped or "castellated" edges and stylized faces, are the most ornate in the region, and their smoking pipes and bone work were also very fine.

Unfortunately, these very facts, coupled with the easy visibility of the earthworks surrounding Iroquoian villages, have meant that their sites in Jefferson County and throughout New York and southern Ontario have been the ones most intensively subjected to careless and uninformed looting by "collectors," so that a great deal of important information on this group of people has been lost, destroyed, or carried away undocumented.

FATAL CONTACT

The St. Lawrence Iroquoians who lived in the Fort Drum longhouses were approaching the end of an era. Already, sailing ships from Europe were encountering groups of native people along the shores of North America, and already a tragedy was brewing that had nothing to do with guns or arrows. Much more deadly than either were the foreign diseases brought by the explorers, which, by the seventeenth century, would constitute a devastation far worse than anything either party could have imagined. Archeologists term the period of these first encounters between Europeans and native peoples the Ethnohistoric period or the Contact period, and identify it on native sites by the presence of foreign trade goods such as glass beads, iron or copper utensils, musket parts, or bones of domesticated animals. As a result of these epidemics, combined with warfare and social dislocation, the St. Lawrence Iroquoians were driven from their homelands sometime between Cartier's visits in 1534-1542 and Champlain's arrival in 1603. Today, however, despite the effects of disease, warfare, and forced assimilation, over 57,000 Native Americans of many different tribal affiliations continue to live and work in New York State, both on and off reservation lands.

Two St. Lawrence Iroquoian Sites

Two of the prehistoric sites at Fort Drum were associated with the St. Lawrence Iroquoians. One, known as Camp Drum No. 1, was a 2.3-acre village that had been extensively excavated in the past. Located in LeRay Township close to Route 342, the site had been known since the mid nineteenth century, and had been subjected to intensive collection by amateur archeologists, haphazard diggers, and "pothunters."

Because Camp Drum No. 1 would have been impacted by scheduled construction connected with the installation of the 10th Mountain Division at Fort Drum, the National Park Service, acting on behalf of the U. S. Army, instructed LBA to "stabilize" the site. In this case, stabilization entailed clearing and mapping over 600 existing excavation units (five feet by five feet) that had been dug by an archaeological field school, as well as evidence of less systematic damage done to the site by decades of private collecting. The Park Service's Work Order also specified that LBA should excavate a

representative sample of thirty of the site's exposed cultural features *(see inset, below).* Finally, LBA was to fill in the site with earth in order to protect it from vandalism and further erosion.

As with all excavations, the first action of the LBA archeologists was to establish site datums, that is, fixed points on the site relative to which measurements could be made. In this case, since the area lacked either prominent geographical features or nearby United States Geological Service benchmarks, they set up their own datums in the form of car axles buried vertically in concrete bases. Then, after the mapping of the existing excavations was completed, the archeological crew began the actual excavations.

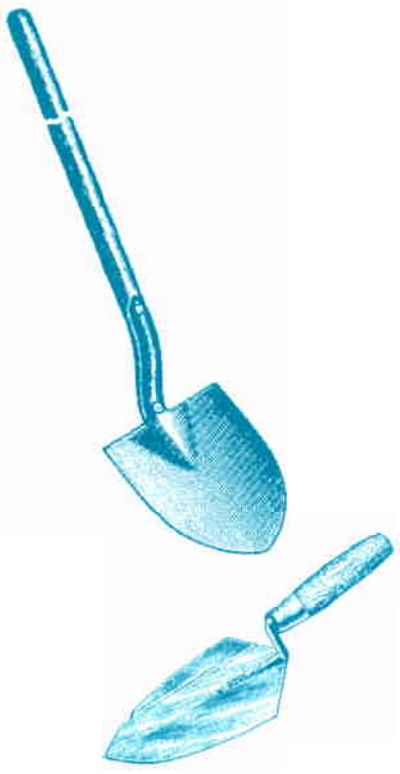
Almost immediately, they encountered a problem. Many of the features in the old excavation units had been so eroded by wind and weather that they were almost worthless as archeological evidence. For this reason, the excavation plan was changed to include opening up eight new areas (five by five feet), rather than salvaging information from old ones. Later, LBA used a grader to scrape away the earth and reveal the soil stains left by hearths and the posts of the longhouses.

WHAT IS A FEATURE?

In archeology, a feature is defined as any part of the site, other than a soil layer, that was made by humans but cannot be picked up and carried away. In Northeastern prehistoric sites, common feature types are hearths, post holes, ditches, middens, trash pits, storage pits, stone bowls carved into bedrock, trails, and signs of quarrying. Historic sites, on the other hand, might contain cellar holes, foundation stones, roadways, wells, privies, cisterns, post holes from fences or other structures, stone walls, dams, root cellars, landscaping elements, midden or trash heaps, and so on.

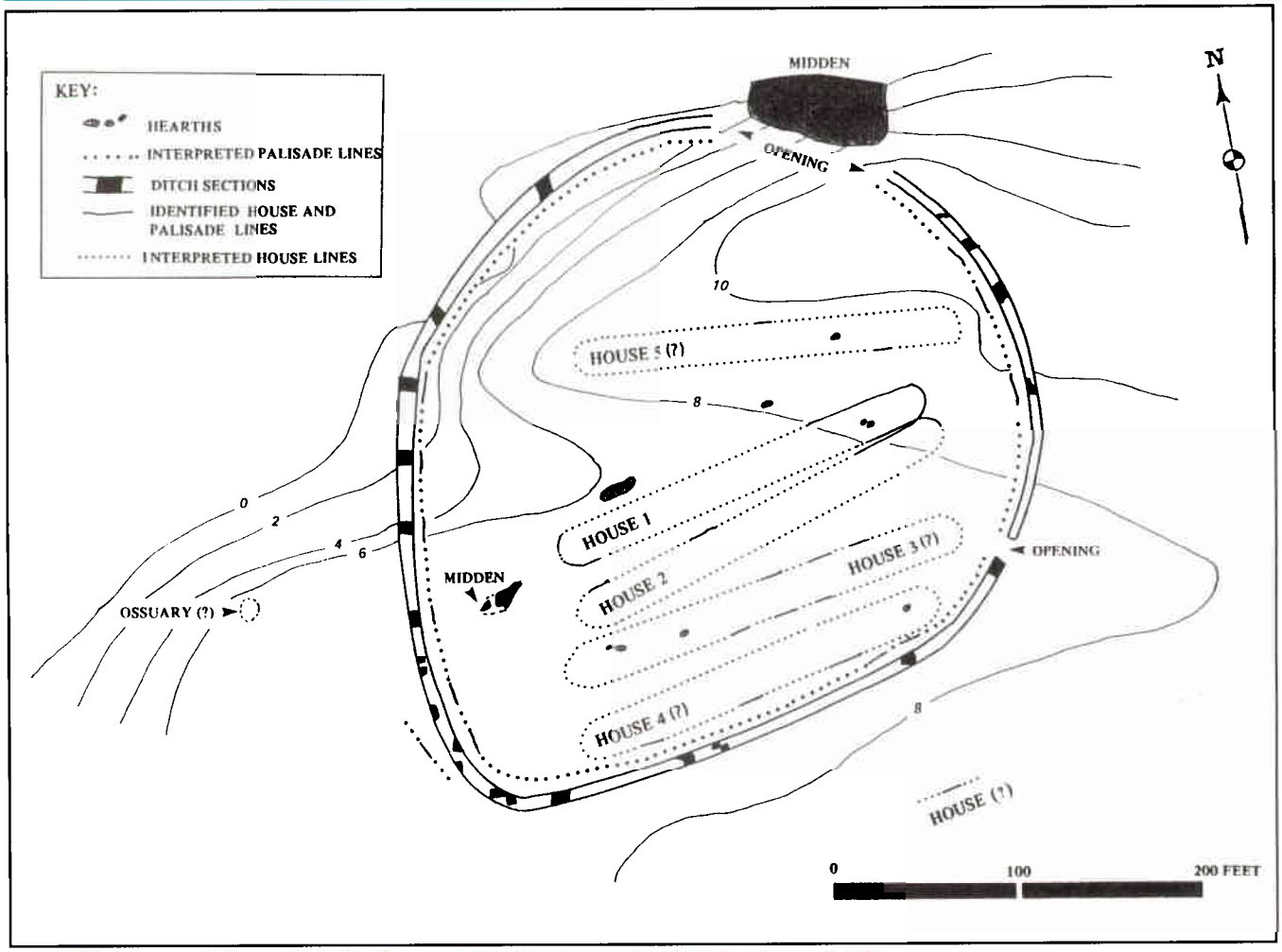
Deeper Is Older

Watching archeologists at work is not at all like watching a terrier dig up a bone. The pace of excavation is slow, as painstaking notes are kept at every stage. The trademark tool of the archeologist is the pointed mason's trowel because its straight edge helps to keep the sides of the excavation unit square. When delicate materials are uncovered, even smaller tools such toothbrushes or dental picks may be used, and always every spoonful of excavated soil is shaken through a screen made of quarter-inch-mesh hardware cloth, so that not even the smallest fragment of pottery, sliver of chipped stone, or bird bone is lost. Sometimes, additional samples of soil will be recovered in order to retrieve seeds, fragments of bone, or tiny artifacts such as glass beads. Charcoal for radiocarbon dating is also recovered through fine-mesh water screening.



Everything found is measured according to its place in a numbered square or unit. The object is to record each artifact or change in soil so carefully that the entire site could, if necessary, be recreated in three dimensions, as if it were a gigantic, many-layered jigsaw puzzle. This is because relative position is very important in archeology. A broken pot is twice as informative if it is found in soil associated with burned maize kernels; a broken spear point is twice as interesting if it is found inside the rib cage of a deer, and so on. Even the fact that certain classes of artifacts consistently appear in a certain dark soil layer, while others are in the sandy silt, can speak volumes to a trained excavator. And of course the overriding principle of all archeology is contained in this simple statement: All things being equal, deeper is older. That is, unless the site occurs in shallow soil or has been disturbed by flooding, geological forces, or human activity such as plowing, the Paleo-Indian spear point will lie below the Woodland pottery sherd, which in turn will lie under the twentieth-century cigarette filter.

FIGURE 6 Reconstruction of the prehistoric village at Camp Drum No. 1 when Houses 1 and 2 were in use.



A possible ossuary (place where the bones of the dead are collected) is shown at left.

The Summer Place

The results of the LBA excavation at Camp Drum No. 1, even though it was intentionally incomplete, are still of considerable interest. The village was indeed a typical St. Lawrence Iroquoian site, surrounded by a ditch and protective palisade enclosing about 2.3 acres. Radiocarbon dating and other evidence showed the site to have been occupied during the early sixteenth century. Thus, strictly speaking, the Fort Drum area's association with defense goes back over 500 years.

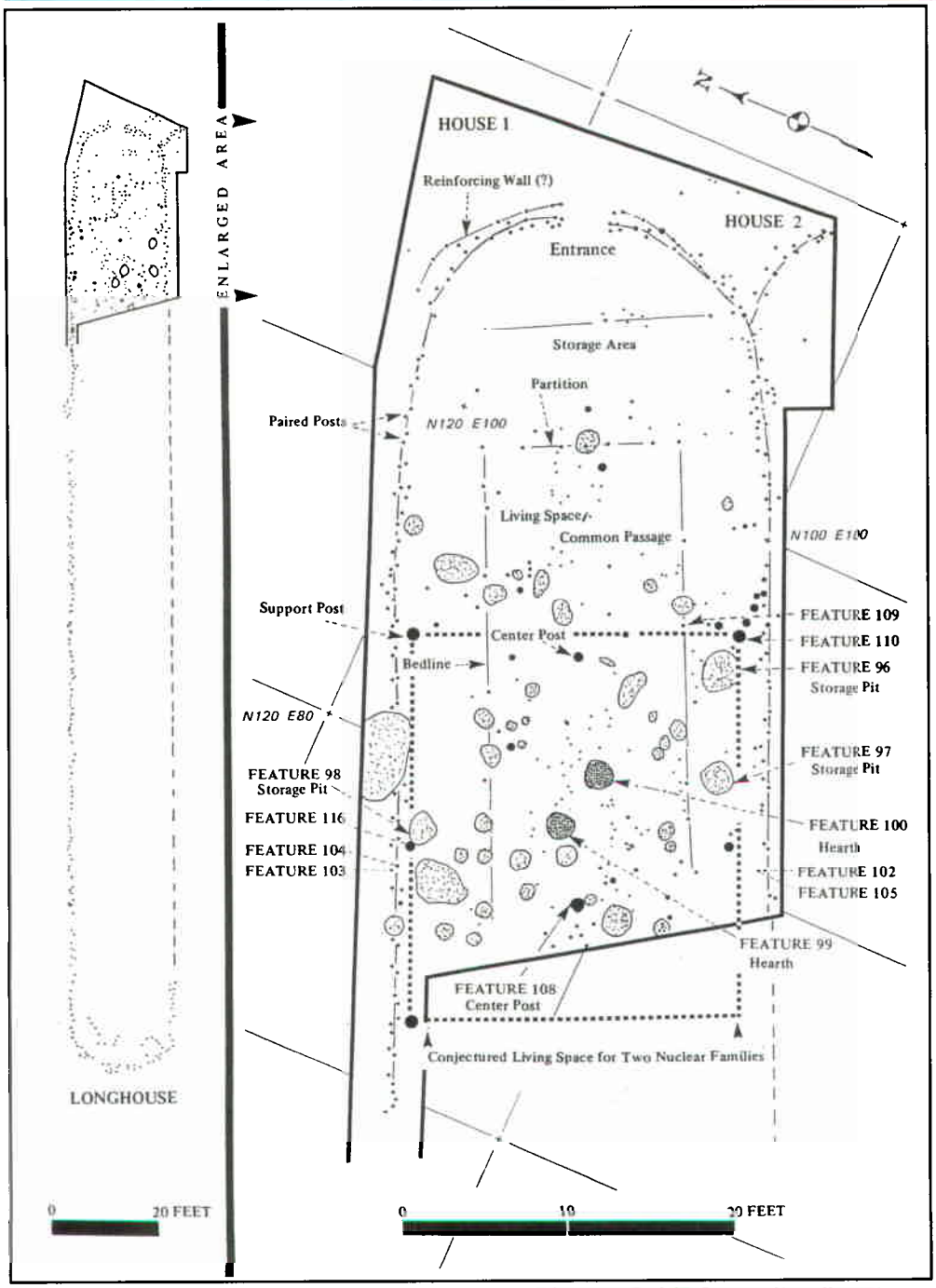
Judging from both the excavations and earlier written descriptions, the palisade surrounded at least five "longhouses," the well-known bark-covered lodges that sheltered about seventy persons, probably related by membership in a maternal clan. Thus the village as a whole may have contained about 350 individuals.

House 1, whose remains were partially excavated in one of the LBA units, appeared to date from the final period of the village's occupation, as evidenced by the fact that its wall footings showed little sign of repair and replacement, such as has often been documented in other longhouses. The house was 202 feet (sixty-one meters) long, oriented east and west, and twenty feet (six meters) wide with an opening at each end. The inference is that the village may have been abandoned within twenty years or so of the con-

struction of House 1, although of course other houses in the compound may have been older and exhibited the common repair pattern.

One interesting detail was that the storage pits inside the house were few and shallow, leading the archeologists to conclude that the village may have been used primarily in the warmer season, when large quantities of food would not have had to be kept on the premises. Another detail that supported this idea was the presence of a communal outdoor cooking area, sixteen by eighteen feet, such as would have been impractical in the

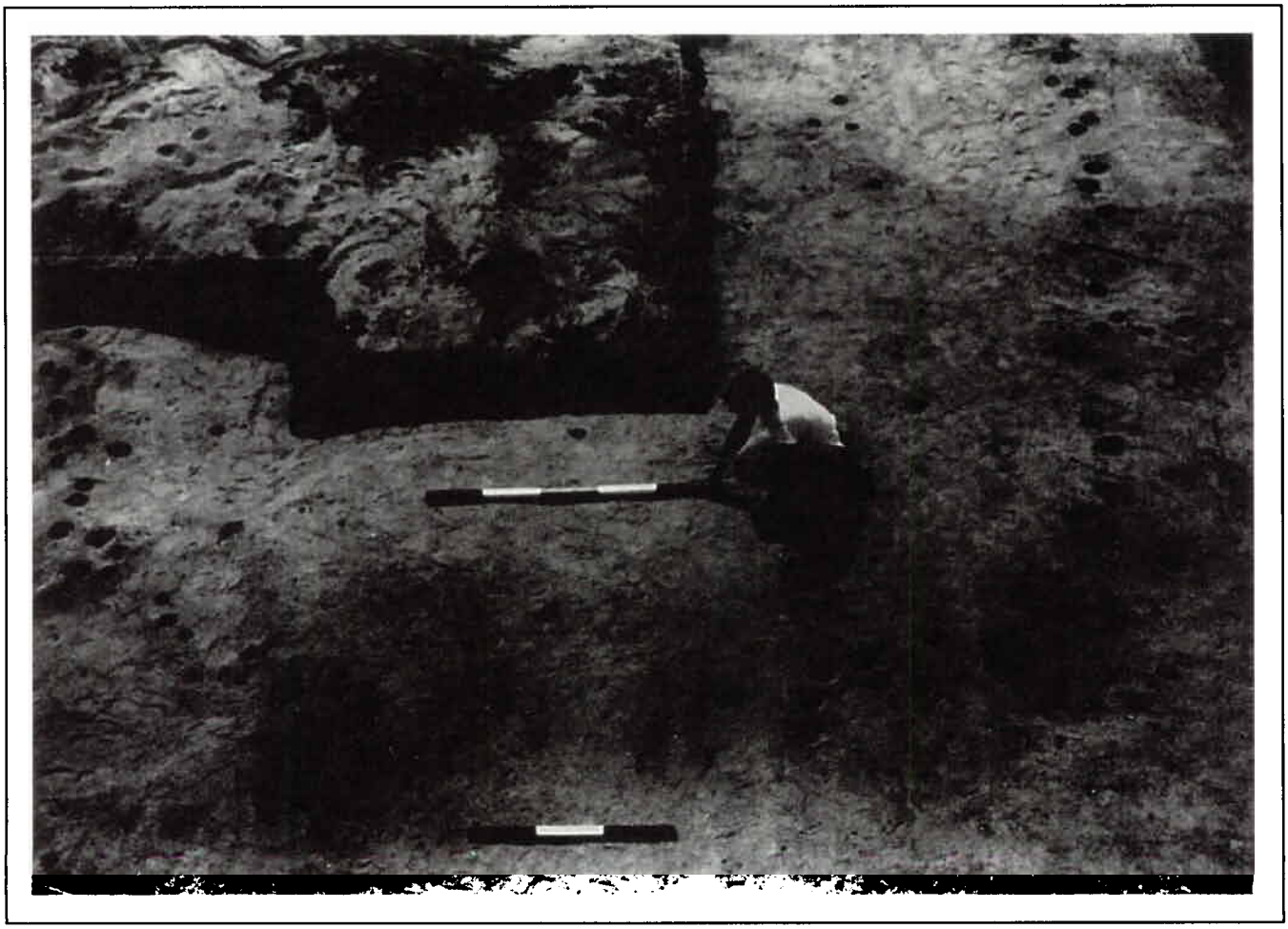
FIGURE 7



Plan of House 1 showing details and interpretations of excavated features at east end.

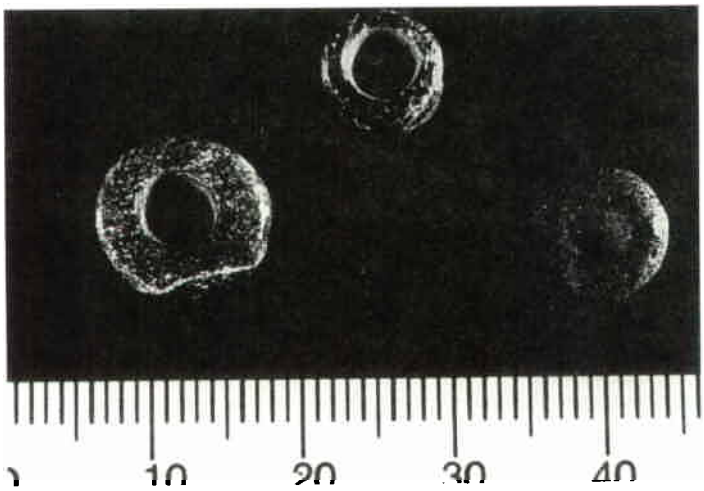
winter. Finally, there was a comparative scarcity of hunting and fishing tools at the site, judging both from the items recovered by LBA and the published artifact lists resulting from the earlier excavations. Rather than knives and spear or arrow points, the site seemed to contain considerable numbers of items such as bone awls, needles and basketry tools, which might have been used by the women during a summer season while the men were away raiding other villages or on large-scale fishing expeditions. The lack of these items, however, appears at nearly all St. Lawrence Iroquoian sites. Very probably, the women, children and elders spent part of their time tending nearby maize fields as well. Then, in the late fall, the men would return home for the harvest and deer-hunting season. An absence of large hearths and hunting and fishing tools inside the excavated house suggests, but does not decisively prove, that residents may have gone to a different location for the winter. Both archeological evidence and written accounts of Native American life at later periods suggest that the preferred locations for winter camps may have been in the uplands, where deep snows might be expected to trap the deer herds, making them easy prey for the hunters. On the other hand, there are many examples of similar villages in which longhouses were clearly better prepared for long winters, sometimes containing storage pits up to five feet deep.

FIGURE 8



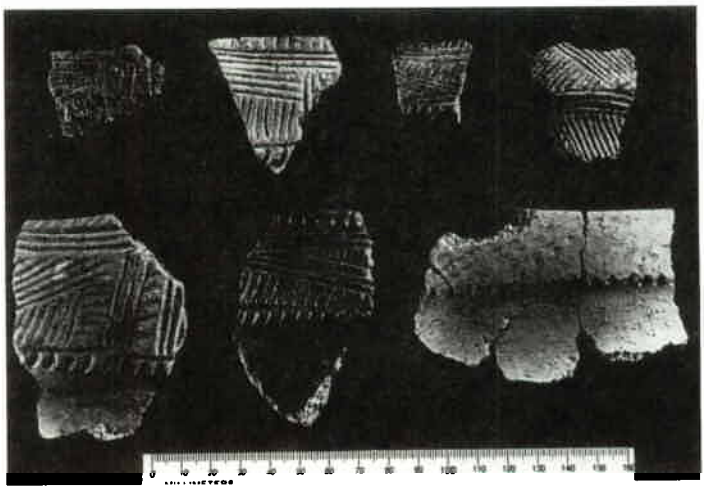
East end of House 1, showing doorway (between striped scale rods) and arrangement of paired posts forming the walls.

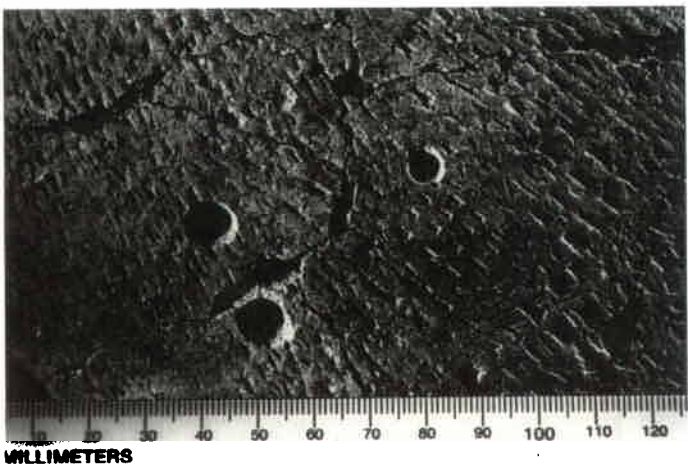
FIGURE 9 Artifacts from Camp Drum No. 1.



Beads made of steatite, a soft, easily worked stone.

Examples of decorated pot rims.





The holes drilled in this pottery vessel show that it was broken and repaired.

The fact that Camp Drum No. 1 belongs to a local complex of neighboring villages of approximately the same period has led archeologists to conclude tentatively that the largest of these, the village at Sanfords Corners, may have been the hub of an areawide system in which smaller places like Camp Drum No. 1 were occupied at certain seasons or for special purposes, while the entire population reassembled at Sanfords Corners for the winter. The jury is still out on this subject, however, and whole story of Camp Drum No. 1 will have to wait for completion of further research, both local and regional.

The Camp Near the Village

In contrast to Camp Drum No. 1, the existence of another, smaller prehistoric site was not widely known before the beginning of the archeology project. It was discovered in 1983 by archeologists under the direction of Joel Klein who were conducting a field survey in preparation for the planned construction related to the new cantonment. The Military Road site, as it came to be called, was located near Camp Drum No. 1 and was tested at the Stage II level *(see Foreword for definition).* It was judged eligible for the National Register of Historic Places, but was left in place because it was not actually threatened by the planned development.

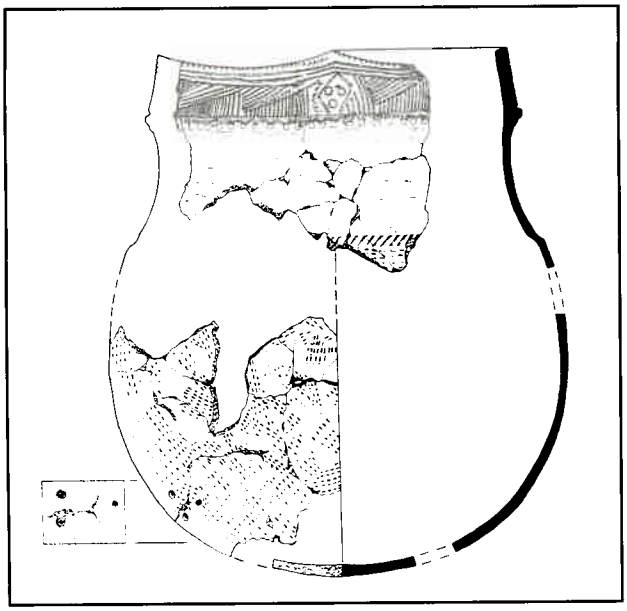
This, too, was a St. Lawrence Iroquoian site, but although its remains turned out to be thinly scattered and somewhat mixed by historic plowing, its collection of informal stone tools, broken pottery, and animal bone was both interesting and enigmatic. The stone tools included a few retouched flakes and a very small number of broken arrow points, suggesting that tools had not been made on the site, but only retouched. This would ordinarily indicate a short-term, infrequent use of the site. By contrast, the ceramics were surprisingly varied in their styles and sizes, with dates that ranged from 1350 to 1575. Finally, the bones and shell found at the site showed that the place's occupants had been fishing and gathering shellfish. *(See Figure 13.)*

The ultimate conclusion was that the site had been a small encampment or hamlet, possibly associated with the nearby village at Camp Drum No. 1. Questions about the occupants, time period, and function of this site could not be answered at the Stage II level of excavation, which only examines part of the site's contents. However, neither the archeologists nor the Army was in a hurry to dig further. In keeping with the best traditions of archeological site conservation, the remains near Military Road will be preserved and avoided unless and until further excavation becomes urgent because of proposed development.

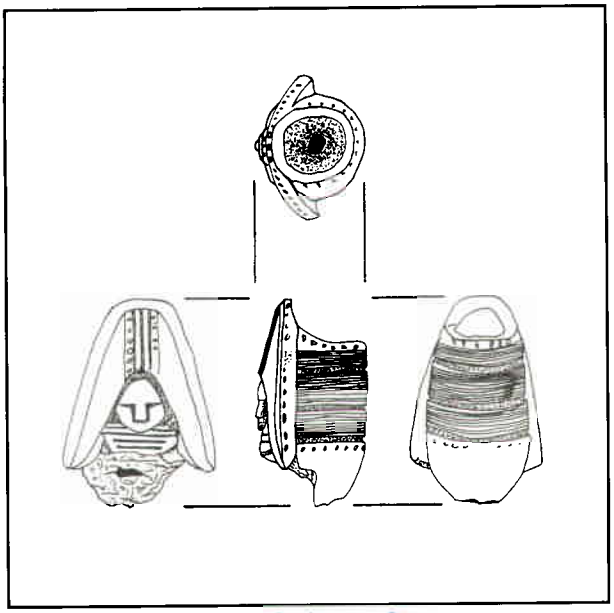
FIGURE 10

Overhead view of Camp Drum No. 1, showing the mazelike pattern of previous excavations.

FIGURE 11 Artifacts from Camp Drum No. 1.



Reconstruction of a pot found in a storage pit in House 1.



Pipe bowl in the shape of a human face.

Archeology in the Laboratory

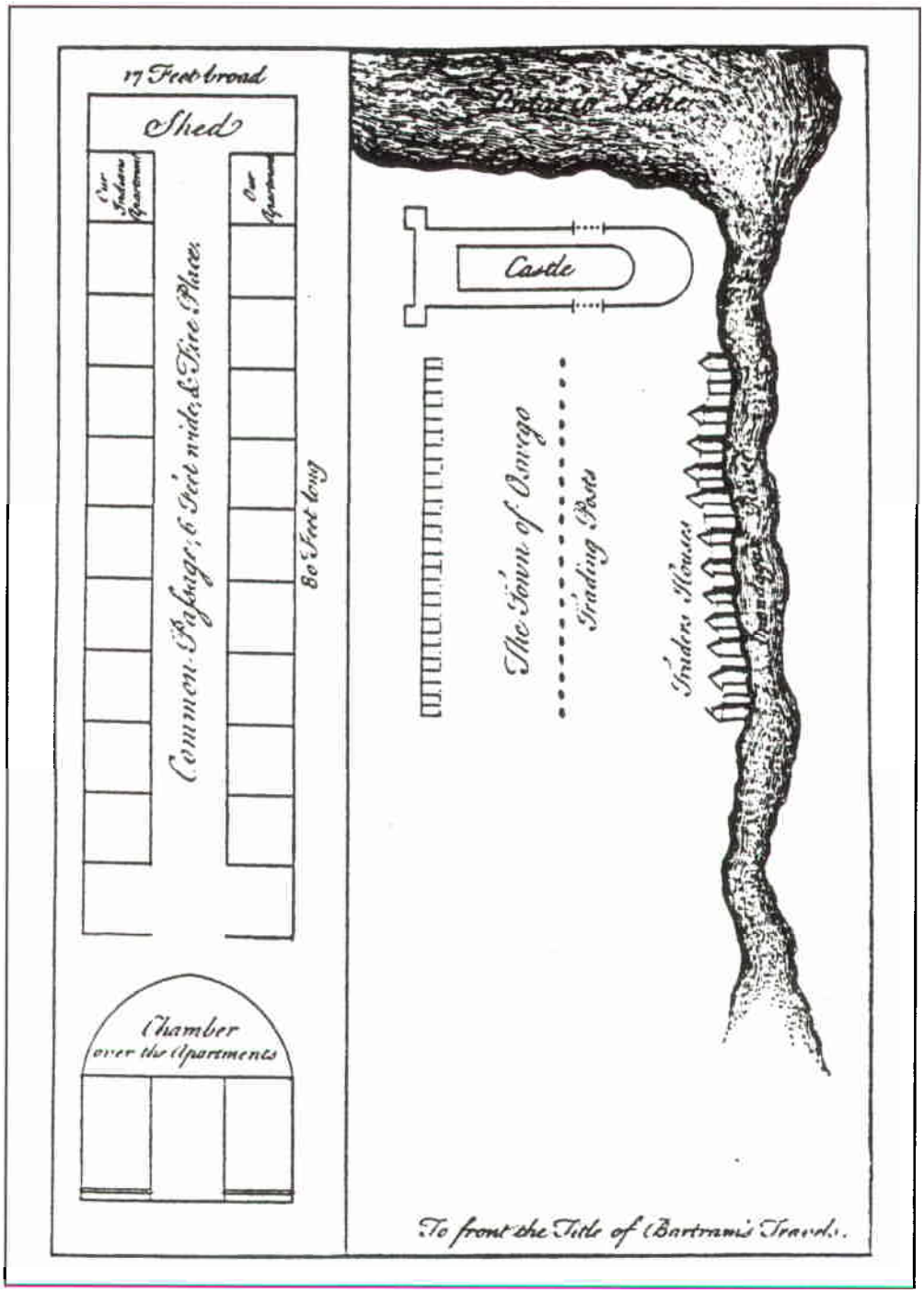
When the LBA archeologists had completed their work on the prehistoric sites at Fort Drum, they had unearthed several thousand artifacts composed of bone, clay and stone. But, as we have seen from the previous discussion, their work did not stop there. On the contrary, modern archeologists know that they spend many hours in the laboratory for every hour in the field. In most states, everything recovered on public lands or under a state permit is the property of the citizens of that state (or of the nation as a whole in the case of a federal permit), and permittees are required to conserve these objects in such a way that they will be available to future generations for study or display.

Every artifact from Fort Drum, whether historic or prehistoric, was placed in a numbered, resealable plastic bag as soon as it was removed from the soil. Next, on arrival at the LBA archeological laboratory in East Orange, New Jersey, it was either washed or, if water might damage it, brushed clean. For many prehistoric objects, such as stone tools, this is all that is required. On the other hand, objects from the historic period are often made of much more varied materials, including glass, glazed ceramics, iron, brass, tin, lead, and bronze, none of which is found on Native American sites unless it was obtained through trade and exchange. Some historic sites, where conditions for preservation are good, also contain leather, wood and bone, which are much rarer in Northeast prehistoric sites because of the prevailingly wet climate and acid soils. This is to say that wood or bone may last a few hundred years under such conditions, but not a few thousand.

The goal of most laboratory work on the Fort Drum artifacts was to prevent further deterioration once they were out of the ground. Metal objects were washed in water and then dipped in acetone to promote thorough drying. Interesting or unusual coins, metal objects or buttons might receive additional chemical treatment to remove corrosion or prevent damage from air and humidity. Next, after labeling with India ink over a protec-

tive coating, all the objects were catalogued in LBA's computer data base using a software package called RBase System V. The data base was designed in such a way that the archeologists could ask it to perform useful tasks such as, "Count the squares on this site that contained more than fifty pipe fragments," or, "List all the squares in the southeast quarter of the site that contained glass objects dated earlier than 1850."

FIGURE 12



In 1751, botanist John Bertram published this drawing of an Iroquoian "council house" he had visited near Lake Ontario. Note the division of the interior into private (family) and public (community) space.

Certain special categories of materials were subjected to detailed further analysis. Discarded bones of food animals can reveal a great deal about dietary habits, the season when a prehistoric site was used or, in historic sites, the economic or ethnic background of the inhabitants. Even soil samples have their stories to tell in some cases, as preserved plant pollens indicate what plants were growing in the region and hence its environment at the time the site was created.

In the Fort Drum archeology, the historic farmsteads to be described below yielded large quantities of butchered bones, which were studied to determine the species and age of the animals, information that in turn provided major insights into farm economics in the nineteenth century. Bones are a perfect example of the types of evidence that were once ignored by archeologists because they did not make attractive displays. It must be noted, however, that archeology has come a long way in its comparatively short history.

Archeology grew out of an interest in "ancient times" by generally wealthy European (and later American) collectors and scholars in the eighteenth century, who were anxious to enlarge their understanding of such then-unanswered questions as, "When was Stonehenge built?" "How old are the Pyramids?" "Who were the Cretans and how did they influence the early Greeks?" and "Who built the mounds in Virginia?"

A few (such as Thomas Jefferson) were truly scientific in their inquiries, but others belonged to the "mantelpiece school of archeology"—find something interesting and put it on the mantelpiece. Unfortunately, some of these inquiring souls did more harm than good to the sites they excavated.

WHY DO ARCHEOLOGY?

In a land rich in resources, why bother to excavate or document remains of the past? A good short answer is that America has run out of time for saving its cultural resources, just as it has run out of time for certain natural resources. One often-quoted statistic of the 1970s is that, at that time, the nation was losing two archeological sites every day, in each state. No region, ethnic group or segment of society is immune from the effects of these losses.

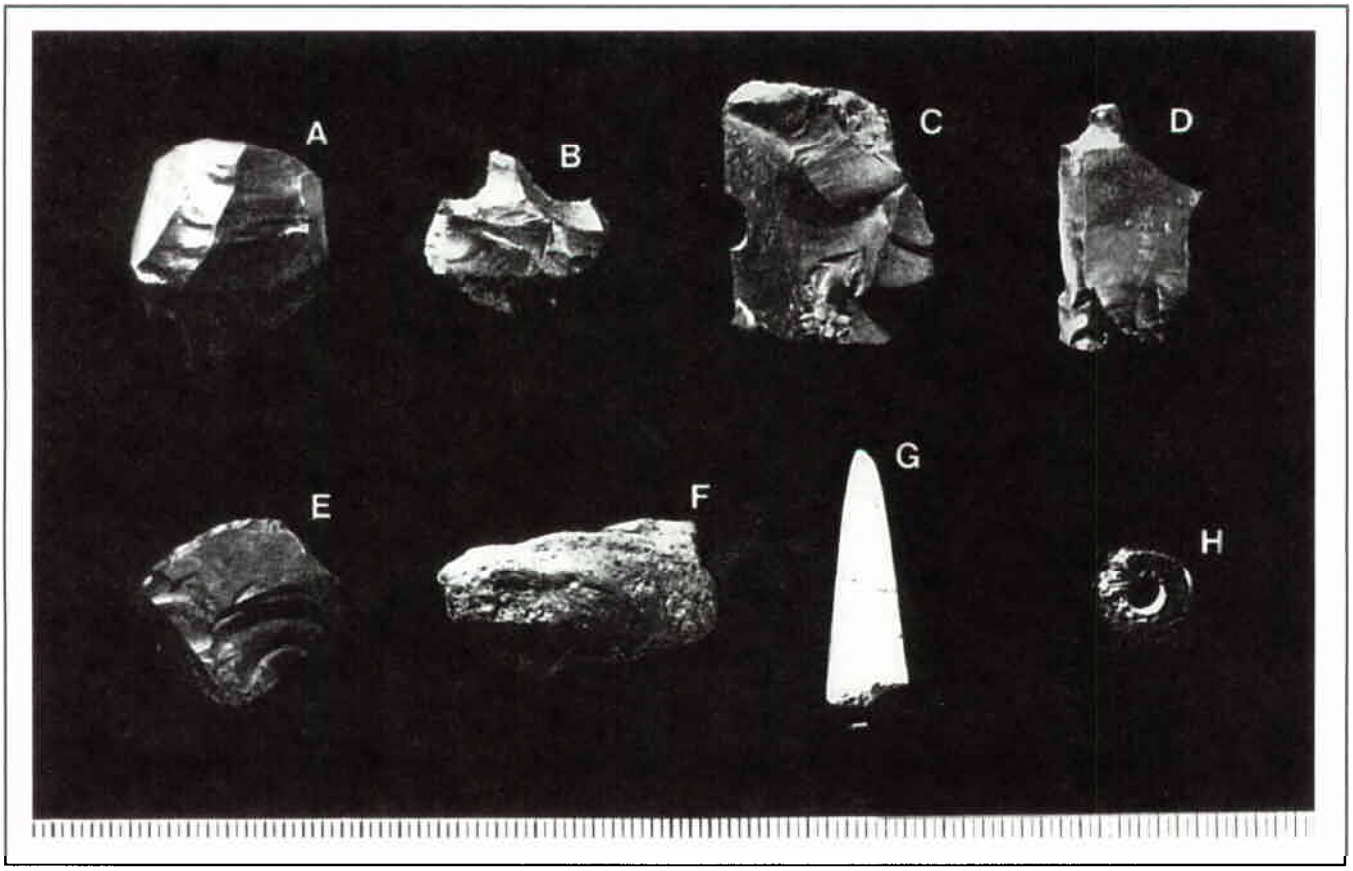
Those who are interested in the legal foundations of this type of work are referred to the National Historic Preservation Act of 1966, as amended, Sections 106 and 110; Procedures for the Protection of Historic and Cultural Properties (36 CFR 800); Procedures for Determining Eligibility for the National Register of Historic Places (36 CFR Parts 60 and 63); the Secretary of the Interior's *Standards for Archeology and Historic Pr eservation* (48 FR 44716); the Native American Graves Protection and Repatriation Act of 1990; the Department of the Army's Procedures and Standards for the Preservation of Historic Properties (32 CFR 650.18L650.193); Technical Manual 5-801-1; Technical Note 78-17; and Army Regulation 420-40.

What Is Historic Archeology?

These early collectors certainly had no idea that their own time in history might become a subject for archeology, and indeed the idea of historic archeology has only developed in the later twentieth century, when archeologists found they were in a position to fill in certain gaps in written records. These records told us, for example, who won the battle but not whether the losers had been drinking heavily the night before, or who owned the mansion but not where the china was bought or what the servants were doing in the kitchen quarters. In short, even the best historic documents tell us about the powerful, the wealthy, and the famous, but not necessarily about ordinary people and hidden economic trends.

Historic archeology today is much like prehistoric archeology in its field methods. Painstaking documentation of every artifact and every change in soil color or composition, the laying out of the site in numbered squares, the numbering and cataloguing of artifacts are all much the same. Only the focus is different, as we look closer to home in order to examine and learn from our own past and perhaps to wonder how archeologists of the future will view us and our civilization.

FIGURE 13 Artifacts from the Military Road site.



A–E: Stone tools made of a hard stone called chert; F: Fragment of a pipestem; G: Polished antler tine; H: Bead made of chert.

The "Howling Wilderness"

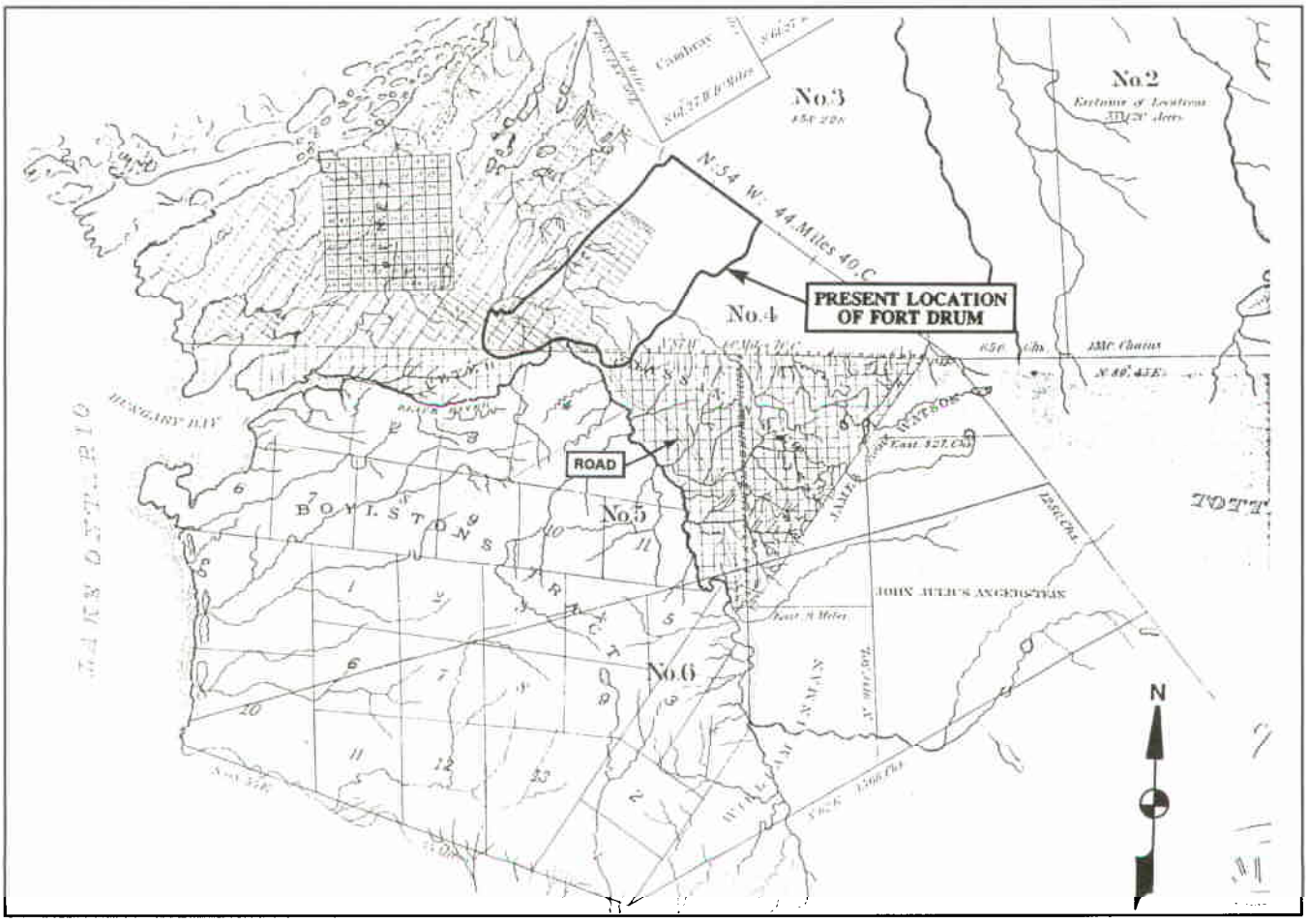
When the Europeans arrived on the east coast of North America, they carried with them much more than iron tools, domestic animals, and muskets. They carried a set of hopes and dreams and ideas about the world and the place to which they were going. To them, the continent was a discovery, while to the continent's hundreds of native tribes it was the home of their ancestors. Thus the concept of "the Frontier" is meaningful to only one of the parties involved, and the fact that this particular piece of North America was referred to by an early European writer as "a howling wilderness" (a quotation from the Book of Deuteronomy) would no doubt have made the native Iroquoians laugh if they had understood it.

Nevertheless, from the European point of view, the lands that became northern New York State were wild indeed, and the "howling" is easily understood in terms of wolves or the bitter winds of winter. Except for the St. Lawrence Valley itself, settlement came comparatively late to the North Country. The seventeenth and eighteenth centuries saw the planting of towns and villages in all the coastal sections of the Northeast, in the Hudson and Connecticut river valleys, and in much of Vermont, but it was not until after the Revolutionary War that the Iroquoians ceded the land to the United States, encouraging developers and speculators to cast their eyes beyond the Adirondacks. Prior to that, the area had been traversed by fur trappers, traders, and missionaries, but little attempt

had been made to establish permanent settlement. This was partly due to the distraction of the French and Indian Wars, the American Revolution and later the Napoleonic Wars, since the region's nearness to English-held Canada made it a chancy place to travel. State and international borders were in some cases under dispute, and New York did not establish a stable land policy until 1786. Most speculators regarded such a policy, which regulated survey and sale of public lands, as an essential precondition to investment. Also a factor was the unstable currency situation that followed the American Revolution, so that potential land sellers feared that the money they received might be devalued overnight.

By far the most ambitious of the early land purchasers was Alexander Macomb, a successful fur trader who had been a partner of John Jacob Astor's. In 1791, Macomb acquired 1,920,000 acres, a huge tract of land encompassing all of Jefferson and Lewis counties and most of St. Lawrence and Franklin counties except the tract known as the Penet Square *(see the map below)*. Macomb then had the land divided into six Great Lots, or Great Tracts, a term still found in legal descriptions of local property. No doubt he envisioned vast profits from his investment, but in a very short time events began to go badly for him and he went bankrupt, leaving his partner, William Constable, to sell off the land as best he could. This paved the way for the entry upon the scene of one of the Fort Drum area's most interesting and colorful historic characters.

FIGURE 14



Detail of map of Macomb's Purchase, showing the Reservation and vicinity, 1796.

"The Impress of Europe"

In the early decades of the nineteenth century, travelers through the North Country were understandably impressed by the sight of a mansion house standing amid a still-shaggy wilderness in which the era of the fur trappers was a very recent memory. Built in the form of a typical northern European villa, the house sat at the top of a bluff overlooking a man-made lake and a small village, LeRaysville (originally known as Brown's Mill). Successor to an earlier, somewhat more modest clapboard-sided residence, the mansion's classical lines, symmetry, and solid limestone structure both proclaimed it to be no mere farmhouse but the home of a gentleman, a person of substance.

This was the residence of the man known in local histories as James LeRay, more properly but confusingly termed Jacques-Donatien Leray de Chaumont *(see below)*. In 1819, the Leray estate was visited by General Jacob Brown. An anonymous aide to the general wrote the following description of the house and grounds:

> *The seat of [Monsieur] Le Ray is a very agreeable one. It occupies the summit of an eminence. . . commanding a view. . . of a portion of the country exposed by means of vistas opened through . . . forests, a lawn covered with verdure and shaded by lofty forest trees, a sufficiency of which has been spared for security from the sunbeams. . . . The woods are opened in all directions by intersecting footpaths which traverse streams, ascend hillocks and plunge into little valleys affording every species of scenery. . . which can interest and delight. Every part of the estate and the territory adjacent to it bears the impress of Europe.*

In succeeding years, the property was to grow even more imposing and more European in feeling. For one thing, the mansion's placement, nearly 400 feet from the nearest road, was in strong contrast to the placements of the majority of neighboring farmhouses, which showed a preference for locations on or close to a major thoroughfare. Clearly, the mansion's siting aimed at something other than pure convenience—it was intended to be seen from a distance, to command the countryside. Further, the immediate surroundings of the mansion had been altered through a series of artifices such as ponds, gardens, small bridges, and vistas to provide the sort of controlled natural surroundings popular among European garden designers at the time. Some sources even state that the Lerays had placed several classical statues in the mansion grounds.

In addition to the mansion and its formal surroundings, the property included, from the beginning, a working farm, located south and slightly east of the mansion. This was built as a model designed to attract agricultural settlement. The distinction between the residential and agricultural parts of the property was preserved even into the late 1800s, when transfer deeds refer to the one as "the Park," and the other as "the Farm."

The Father of the North Country

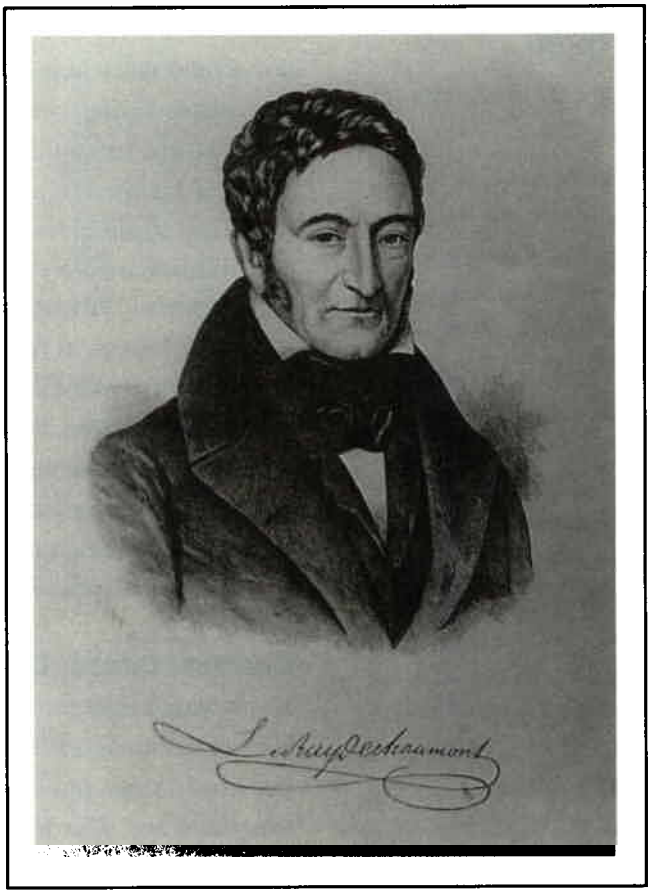
Jacques-Donatien (known in his adopted county as James) Leray was born in France in 1760. His father (also christened Jacques-Donatien and hereafter referred to as Jacques in contrast to son James), was a successful land holder, international trader, and investor who was entitled to call himself a nobleman because of a title purchased from the French Crown by his father in approximately 1734. Among Jacques' many commercial interests were leather tanning, cotton cloth, grain milling, naval supplies, and participation in the

Compagnie des Indes, the French equivalent of Britain's East India Company. Modern historian Dr. Thomas Schaeper, upon whose recent researches much of this discussion of the Leray family is based, ranks him "near the top of French society in terms of wealth." It is to Dr. Schaeper's work that we owe the information that "James" Leray was actually named Jacques-Donatien after his father. The author has also chosen to follow Schaeper in spelling the family name not LeRay (or Le Ray) but Leray, which is correct in terms of French nomenclature.

James Leray's father Jacques was among those French citizens who sided with the Patriots during the American Revolution. He was, in fact, Benjamin Franklin's landlord during part of the latter's stay in France, and the two men maintained a lifelong friendship. Jacques also had extensive dealings (not always harmonious) with such well-known Americans as John Adams and John Paul Jones.

In addition, Jacques Leray evidently provided various kinds of material support to the Patriot cause, particularly uniforms and munitions. However, he experienced a continuing series of financial problems and personal disputes in the 1780s and by 1785 had sent his son James to the United States in search of new investment opportunities and ways to resolve some of Jacques' outstanding business affairs. Financial conditions after the American Revolution were troubled, and the Lerays were not the only French investors who had difficulty during this period.

FIGURE 15



James Leray de Chaumont (1760–1840).

COURTESY OF THE JEFFERSON COUNTY HISTORICAL SOCIETY

"Not Worth a Continental"

This was the economy that spawned the expression, "Not worth a continental," which is still occasionally heard in the region. The continental referred to was the printed currency issued by the American Continental Congress and devalued in 1780. Thus although the senior Leray had been paid for his contributions to the war effort in continental dollars and loan office certificates, the devaluation left these assets close to worthless.

James was charged with persuading the Congress to honor what Jacques Leray and other French financiers perceived as a moral obligation on the part of the new government. In this, despite the assistance of Benjamin Franklin, James unfortunately failed.

The French revolutionary government also owed Jacques money, in more than the moral sense. This debt was finally settled in 1795 at the hefty sum of 321,343 French livres, but Jacques never received actual payment.

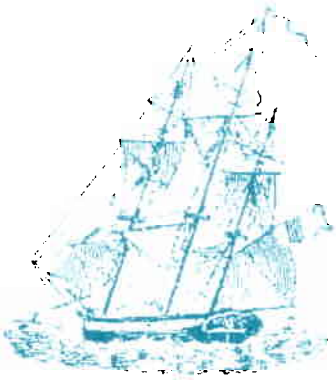
Notwithstanding the difficulties he experienced in attempting to solve his father's financial problems, James Leray evidently found something to his liking in the new land. By 1788, he had become a U.S. citizen, and by 1789 had married a young woman named Grace Coxe, of Sidney, New Jersey. The Coxes were prominent in both local affairs and the Federal government. Together, the couple returned to the Leray family estate at Chaumont, France, and there the couple's first son, Vincent, was born on September 9,

1790. This was a dangerous time to be in France, especially as members of a noble family. The French Revolution had begun in 1789 and aristocrats were being herded to appointments with "Madame Guillotine" in increasing numbers. It appears, however, that Jacques' local reputation as a kind and generous landholder helped to protect him from mob violence. James, who was staying in France at this time, also put forth the argument that any actions taken against his family might be seen as directed against himself, an American citizen, during a period when France valued the support of the newly formed United States against its traditional enemy, Britain. For whatever reason, or perhaps by chance, the Leray family survived the Reign of Terror unscathed. Nevertheless, they had sustained significant financial losses. By the time of Jacques' death in 1803, his fortune was in ruins and his once-extensive holdings were scattered.

Between 1790 and the mid 1820s, James Leray seems to have traveled back and forth across the Atlantic at frequent intervals, creating a complex web of investments and real estate deals in which his associates included Benjamin Franklin's grandson William Temple, Alexander Hamilton, the diplomats John Jay and Gouverneur Morris, and even the famed French writer Madame de Staël. Closely involved with James Leray in many of his land speculations was his brother-in-law Peter (or Pierre) Chassanis, who acquired, on his own behalf, a large section of the land owned by Alexander Macomb. This became known as the Chassanis Purchase.

IN 1790

- *George Washington is President.*
- *Death of Benjamin Franklin, at age 84.*
- *Rhode Island ratifies the Constitution and becomes the thirteenth state.*
- *English immigrant Samuel Slater establishes the nation's first successful cotton spinning mill on the Blackstone River at Pawtucket, R.I.*
- *First performance of composer Wolfgang Amadeus Mozart's Concerto No. 19 for Pianoforte and Orchestra. Mozart will die next year at age 35.*
- *In two years, Eli Whitney's invention of the cotton gin will make cotton processing easier but increase the demand for slave labor in cotton-growing states.*



Candles, Cocoa, Cotton, Coffee

A surviving ledger for the years between 1805 and 1812, which has been provisionally but not definitely attributed to James Leray's business, reveals that Leray (probably) had interests in ships and cargoes bound for a wide variety of French, Spanish, Portuguese, American, and West Indian ports, carrying commodities whose names seem to give off the flavor of the times. Candles, potatoes, wheat, sugar, cotton, wine, pitch, tar, cocoa, butter, biscuit, rum, brandy, and coffee all traveled under the Leray name, and it is in the context of this sort of commercial activity that his ongoing interest in land development must be viewed.

In addition to a large purchase of land in Pennsylvania and a smaller one near Cooperstown, N.Y., Leray began acquiring lands around what is now the mansion property as early as 1798 or before. The sum of his several holdings in the North Country amounted to approximately 600,000 acres, in present-day Lewis, Jefferson, Franklin, and St. Lawrence counties.

In this connection, is important to note that none of the lands owned by James were given to him in payment of the perceived debt of the American government, despite assertions to the contrary by some early writers. There is ample proof of the fact that James and his partners bought and paid for the lands in a series of standard commercial transactions.

But Leray had not bought all this land for long-term investment. He was interested in development and actively pursued projects, such as road building, that would make his property more attractive to buyers. It is also noteworthy that he did not choose to follow the Old World pattern of keeping title to his lands while allowing them to be worked by others, thus creating a class of indentured tenant farmers.

This was not Leray's first real estate venture. Over a decade earlier, he had made a

similar investment in another part of New York, which he happens to have described in a surviving letter dated 1818:

> *As early as 1785, I began a settlement in the now flourishing county of Otsego than [sic] a wilderness. I built there the first sawmill and the first gristmill and opened a Road. Then I made sale to settlers, giving them ten years credit. The Country settled very fast and I was soon justified in raising my price.*

James followed a similar pattern in the Fort Drum area, operating under the name of "the Castorland Company." This name was a tribute to the area's history in the French fur trade, since "castor" is another name for beaver. The popular beaver hats of the period were sometimes referred to as castors.

Surviving indentures or land-sale records indicate Leray began selling off his new purchase as early as 1804, when he deeded over 3,000 acres to seventeen individuals, many of whom may have been members of the Society of Friends (Quakers) from Bucks County, Pennsylvania. These families were founders of the local New York village they called Philadelphia, presumably after the more famous "City of Brotherly Love" in Pennsylvania. A Society of Friends was formally organized near LeRaysville in 1805.

It seems that Leray and his wife Grace did not reside on the mansion property until after 1807, when their son Vincent completed his studies in Paris at the Royal Polytechnical School and came to the New World. The federal census of 1810 shows the family as living in Jefferson County, with a household of thirty-five persons. Such a large group clearly indicates the presence of servants, slaves, and laborers as well as family members James, Grace, Vincent, younger son Alexander, and possibly other children. In succeeding years, the Leray Mansion, once called the finest residence north of Albany, was a stopping place for many prominent travelers, including New York Governor De Witt Clinton and Presi-

FIGURE 16 The Leray Mansion today.

US ARMY PHOTOGRAPH

IN 1800

- *John Adams is President.*
- *China's population is 295 million, Britain's is 10.4 million, the United States' is 5.3 million.*
- *Silk hats, introduced two years ago in London, are catching on everywhere. As demand for beaver hats drops, so does the demand for American beaver pelts.*
- *Next year, Britain will pass a law forbidding children to work before age nine, or for more than twelve hours a day, or at night.*
- *Three years from now, in a protest against the Louisiana Purchase, New York and Massachusetts will threaten to secede from the Union.*
- *First settlement of Watertown, N.Y.*

dent James Monroe. (The latter was in the area for the purpose of inspecting a new military road and defensive emplacements at Sackets Harbor. This was in the period following the War of 1812, when there was widespread concern about the possibility of a British attack launched from Canada across the Great Lakes.)

James always maintained a reputation for civic involvement. Among organizations of which he was first president are the St. Lawrence Turnpike Company, the Jefferson County Agricultural Society (now located in a museum at Stone Mill, N.Y.), and the New York State Agricultural Society. He also donated land for several local churches, both Catholic and Protestant, and supported construction of the Erie Canal, although the route eventually chosen ran further south than he would have liked, and did not pass through his property.

Many of James' real estate dealings in New York involved French émigrés, or refugees, who were fleeing first the French Revolution and then the collapse of the Napoleonic Empire, following the Battle of Waterloo in 1815. His most illustrious client in the latter category was Napoleon Bonaparte's brother Joseph, the sometime King of Spain. In 1815, Joseph Bonaparte bought from James a property of some 26,000 acres in Jefferson County, situated around Bonaparte Lake just beyond the northeast corner of Fort Drum. Bonaparte built no fewer than four summer homes on this land and visited them regularly with his mistress, Annette Savage.

James Leray helped to establish a tradition that seems to survive today among American real estate developers, that of naming parts of his holdings for himself and members of his family. Instead of "Kimberly Drive" or "Jason Lane," however, James left his mark on the land with the villages of LeRaysville, Chaumont, Theresa (after his daughter) and Jamesville (now Redwood). His two sons were memorialized in the St. Lawrence River's Cape Vincent (near where the St. Lawrence meets Lake Ontario) and Alexandria Bay (on the St. Lawrence River). For some reason, there was no Coxetown or Graceville named after Leray's first wife. Surviving documents suggest the marriage was not an especially harmonious one.

FIGURE 17

COURTESY OF THE JEFFERSON COUNTY HISTORICAL SOCIETY

Vincent Leray de Chaumont (b. 1790), son of James Leray.

In 1817, it appears that the original clapboard-sided Leray mansion suffered a major fire, an all-too-common hazard at this period. The current structure (completed in 1827) was rebuilt in even grander style than before, using a combination of stone and stucco. This building, in all its symmetry, sporting its wings and impressive portico, is the one that survives today.

Despite his many civic and business involvements, James Leray fell increasingly into debt as the years passed, at just the period when the mansion was being rebuilt. In 1823, his affairs went so poorly that James was forced into personal bankruptcy, leasing the mansion complex to his elder son. Vincent, who was described by his father in a letter as notable for "his talents in business," continued to reside on the property at least until 1825, sometimes in the

company of his younger brother, Alexander. The latter, however, ultimately took one of the career paths open to adventurous younger sons, making his way to Texas, where he joined the army of General Sam Houston with a captain's commission. In 1837, he died, not in any of Houston's famous battles, but as the result of fighting a duel.

Vincent continued to hold the property until 1840, the year of his father's death, although the family had returned to France in 1836, after which time Vincent was no more than an infrequent visitor. In 1840, the mansion came into the hands of Jules René Payen, a man who had served as Engineer of the Mines after attending art school in Paris with Vincent Leray. Payen and his family are buried in Fort Drum's Sheepfold Cemetery, located north of Route 26. On his death, Jules passed a life interest in the property to his widow, after which it went, in 1875, to their daughter, Julia Payen Phelps. It continued in the Phelps-Anderson family until 1936, when it was sold to Retired Colonel Harold Remington, for whom a nearby pond was named. This pond had previously been known as James Pond, after—you guessed it—James Leray.

THE SHADOW OF NAPOLEON

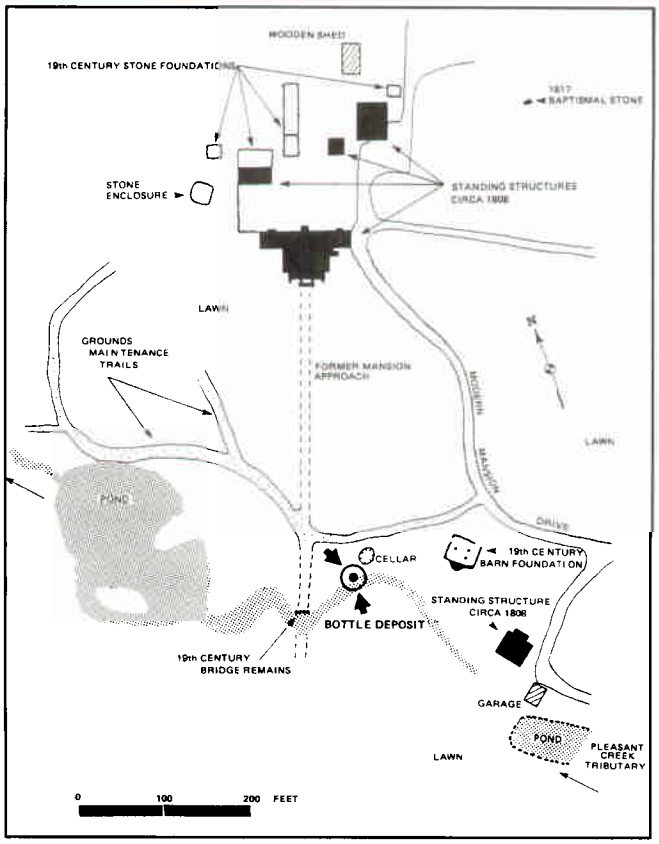
The influence of Napoleon Bonaparte on American history can neither be overestimated nor precisely quantified. No other European figure of the early nineteenth century had such an effect on his times, although opinion was sharply divided as to whether Napoleon was a national hero, a jumped-up army corporal, or even "the Monster," a term liberally used by some of the crowned heads of Europe. Certainly Napoleon's lust for empire kept Europe in a state of turmoil for decades and resulted in emigration to the United States and Canada by thousands of draft resisters and political opponents. (Some of these settled in the North Country, as we shall see.) In addition, many historians feel that the U.S. might not have gotten off so lightly in the War of 1812, in fact might have lost and been reabsorbed by Great Britain, if the mother country had not been locked in a terminal struggle with Napoleon's powerful army and navy. His ultimate military defeat at the Battle of Waterloo in 1815 marked the end of the most remarkable imperial adventure of the nineteenth century.

Bottles and a Barn

The archeology performed by Louis Berger & Associates at the Leray Mansion was in no sense intended to uncover all the evidence of past life that is undoubtedly contained in the property. There were and are many areas of the mansion complex that have not been excavated and that may yield more information on the life of the Lerays, their servants, their slaves, and their tenants. The purpose of excavations at the mansion complex, as with most of the Fort Drum excavations, was only to bring to light buried evidence that would otherwise have been destroyed by proposed development or site improvements. Because of their interest in solving particular riddles and the cost of digging, archeologists often prefer to leave buried resources undisturbed for future generations, rather than going after every artifact they can find.

The LBA archeologists' first task was to complete a survey of all the standing structures and visible remains on the property, including such features *(for definition, see inset, page 7)* as cellar holes, foundations, well heads, walls, trash dumps, gravestones, and landscaping structures. Surveys of this type provide baselines for management and future work, should any become necessary. The survey found many interesting aspects of the Leray property, which included a carriage house, chapel, servants' quarters, and several other structures whose remains have not as yet been identified. At some distance lay a working farm complex that presumably supplied the mansion with meat, produce, and other necessities. The manager's or tenant's residence was the structure labeled Standing Structure Circa 1808 on Figure 18 and otherwise known as the Stone House. The archeological work in this area also exposed the remains of a barn dating to the mid nineteenth century and another, more massive dairy barn dating to the 1920s. The first barn was shown to have served many general farm purposes, while the second was more specialized, focusing

FIGURE 18



The grounds of the Leray Mansion, showing structures that were standing about 1808. The so-called Stone House is at lower right, labeled Standing Structure.

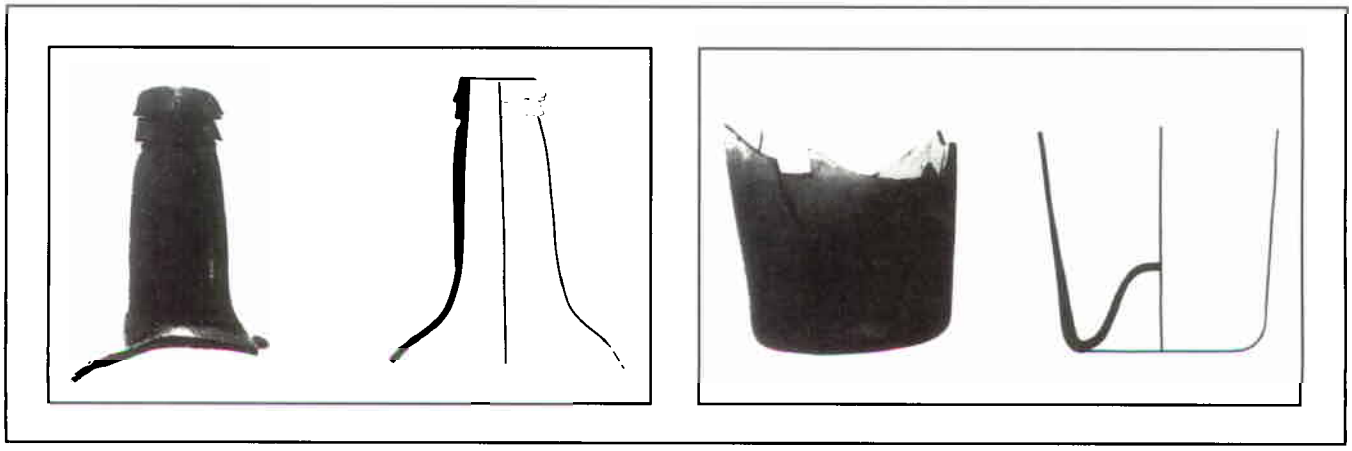
on milk production. This finding fits well with the agricultural history of the region, which will be detailed in a later section. Around the two structures, the open yard areas were found to have been used as a dumping spot for both table scraps and butchering waste, a pattern very typical of the period.

Another area of interest was the excavation of a Leray-era bottle deposit from the mid eighteenth and early nineteenth centuries. The deposit was first noted in 1986 because it was eroding out of the bank of the small stream that crosses the route of the now-disused front drive of the mansion. (This road originally ran straight up to the second mansion's main entry from a road leading to the village of Black River, providing a typically aristocratic view of the approach to the property.)

Since the bottle dump was clearly of an early date and was very likely to be associated with the Leray Mansion, a property listed on the National Register of Historic Places, the Army instructed LBA to excavate the dump in order to prevent further loss of the artifacts.

The excavation produced a total of 3,425 glass fragments, all of which belonged to wine or liquor bottles. Old bottles can be classified from details of their shape and manufacturing techniques—whether they were hand blown, blown in a mold, or machine made, for example, or according to the form of the bottle rim *(see inset, page 88)*. These details in turn serve to date the bottles. This collection turned out to come from the period 1740 to 1830, which fit very nicely with the idea that it belonged to the time of the Leray family's residence. Of particular note was the fact that the large majority of the bottles proved to be of probable French origin, while only a very few were British, and an equal number were possibly Dutch. But though the bottles were clearly imported and designed to contain relatively

FIGURE 19 Typical early bottle neck and base forms from the Leray bottle deposit.



expensive wines or brandies, signs of wear on some of the bases indicated they had been reused. In the early nineteenth century, glass containers had not yet come to be regarded as disposable.

The Mathematics of Freemasonry

When the LBA archeologists began to construct their final survey maps, they found an odd thing: the dimensions of the mansion often fell into the ratio of 1.618. This number is of some significance in the history of Western thought. It is what the ancient Greeks and others have referred to as the Golden Section, Golden Mean, or Divine Proportion. Over 2,000 years ago, Eudoxis the mathematician recorded that if one attempts to divide a line in such a way that the ratio of the length of the longer portion to the shorter is the same as the ratio of the longer portion to the whole, the resulting ratio is approximately 1.618. For centuries, artists, architects, and philosophers have included these ratios in their creations as a statement about the harmonies of the universe, and one of the groups most identified with the use of the Golden Section is the secret fraternal order of Free and Accepted Masons, more commonly known as the Freemasons.

This raises the possibility that the ratios were deliberately incorporated into the building either by James Leray himself or by his son Vincent at the time when it was turned around to face away from the bluff and the formal portico was added. Certainly, Vincent's grandfather Jacques Leray had a long association with one of the United States' most prominent Masons in the person of Benjamin Franklin, who might well have sought out a fellow Freemason to serve as his landlord during his stay in France. However, until such time as additional evidence may turn up to link James Leray (or possibly Vincent) to the Freemasons, the mathematical properties of the building must remain an intriguing historical footnote.

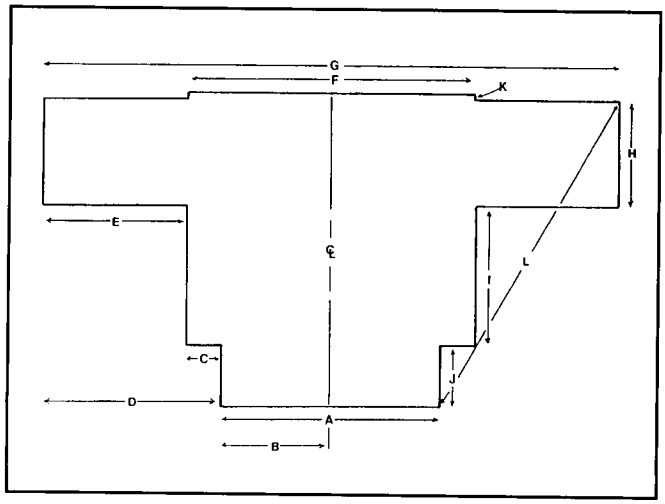
RATIOS AND THE GOLDEN SECTION

For those who would like to pursue the idea of ratios and the Golden Section, the following short discussion is offered. If a house is a rectangle 40 by 60 feet, the ratio of its width to its length is 2 to 3. Put another way, the length and the width are in ratio of 0.667 because that is what you get if you divide 60 into 40. Ratios such as this one are common in architecture.

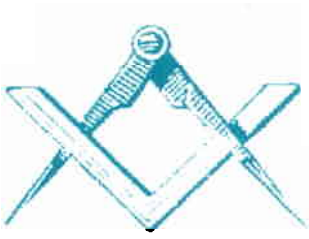
Much less common were the recurring ratios of the parts of the Leray mansion. The possible significance of the Golden Section in the mansion's construction is illustrated in Figure 20, where the ratios F ÷ D, H ÷ J, G ÷ L, L ÷ A and twice D ÷ A are all 1.618, while the ratio G ÷ A is 1.618 squared. No advanced understanding of mathematics is necessary in order to suspect that these numbers represent much more than the operation of chance, and in fact a complex statistical analysis showed that the likelihood of these dimensions' occurring by accident was less than one in a thousand.

Closer study of the diagram reveals that nearly all of the ratios are dependent on dimension A, which is the length of the building's front colonnade. Thus the builder of the colonnade, whose name is still unknown to us, established the entire mathematical system, whether because of a connection to the Freemasons or merely out of a fascination with numbers. It is conceivable that the Lerays employed an architect or builder who used this mathematical system without the knowledge of his patrons.

FIGURE 20



Plan of the Leray Mansion with dimensions labeled alphabetically.



PART TWO

The Farmers In The Dell

WHILE THE LERAYS AND THE PAYENS WERE LIVING A LIFE of considerable elegance at the Mansion and in Europe, the rest of the territory that was later to become Fort Drum was developing along quite different lines. Between 1790 and 1800, the section of Jefferson County around the Black River began to be settled by pioneers from Connecticut, Vermont, and Massachusetts, who formed small community groups with town-meeting governments similar to those they had left behind in New England. The communities of Champion and Ellisburg were founded in 1798. Two years later came Watertown, where, by 1802, a dam had been built across the Black River at the foot of Mill Street.

The Black River descends from the Adirondack Mountains into Lake Ontario, and is one of the chief geographical features of the Fort Drum area. The river is well named. Its cold waters, black and glossy as obsidian but not as still, follow a rocky bed for most of its length, with intermittent stretches of white water that once teemed in their season with trout, salmon, eels, and shad and still provide good fishing in certain sections. Even more important to the settlers was the fact that like most North Country rivers, it and its neighbor, the Indian River, had more than enough power to turn the mills that were such an essential part of early nineteenth-century development. By 1810, the first year for which census figures are available, there were 15,140 souls in Jefferson County as a whole. Within ten years, the population would double.

In these early years of growth, the development of transportation networks was a crucial ingredient. A survey of the late 1790s shows one road, which linked the St. Lawrence River with the western Black River area and the new settlements to the southeast. (There may have been other minor roads not shown on the survey.) The area still supported large tracts of timber at this time, but where there were rivers and tall trees, the lumber mills could not be far behind.

The area's first public transportation took the form, by the 1830s, of a series of stagecoach lines that linked Utica, Watertown, and other regional centers with Sackets Harbor —an Army garrison, port, and shipbuilding town on Lake Ontario not far from the Fort Drum area. The completion in 1825 of the Erie Canal, linking Albany with Buffalo, at first posed more of a threat than a boon to the area's prosperity, since it offered a convenient route by which goods and travelers bound for the new lands to the west could bypass the North Country in favor of the Genessee Valley.

Typically, James Leray, then president of the newly formed Jefferson County Agricultural Society, was among the first to see the problem and to take action to correct it. With his support and encouragement, feeder canals were built to provide links between the Black River at the town of Carthage and the greater system of waterways

IN 1810

- *James Madison is President.*
- *John Jacob Astor founds the Pacific Fur Company.*
- *New York City becomes the nation's largest, surpassing Philadelphia for the first time.*
- *U.S. population is 7.2 million.*
- *There are seventeen states in the Union.*
- *In two years, the U.S. will declare war on Britain; the War of 1812 will last until 1815.*

to the south. This effort was completed in 1840, the year of Leray's death.

The construction of the Erie Canal had another effect on regional development in that it encouraged the growing of wheat, which was then transported for processing at centers such as Rochester. Wheat was in fact the principal agricultural crop of the North Country in the early 1840s.

IN 1820

- *James Monroe is President.*
- *Britain's King George III dies. He was much hated in the U.S. as the tyrant of colonial days. He is succeeded by his son, George IV.*
- *The U.S. economy is in depression. Manufacturers pressure the government to raise tariffs.*
- *Maine becomes the Union's 23rd state (free), balancing admission of Missouri as a slave state, according to the terms of the Missouri Compromise.*
- *Three years from now, in a protest against the Louisiana Purchase, New York and Massachusetts will threaten to secede from the Union.*
- *Last year, an iron cook-stove was patented by Vermonter John Conant, but U.S. housewives are slow to adopt this new-fangled notion, preferring the traditional hearthside cookery.*

Steel Rails and Barges

Just at this time, another regional development was having a profound impact on the Fort Drum region. The first railroad reached Watertown in 1855 and by 1857 had extended itself northward to Ogdensburg, passing on its way through the Fort Drum villages of Sanfords Corners, Evans Mills, Antwerp, and Philadelphia, all of which lie along the northwestern edge of the Fort Drum reservation. Development of the railroad system continued until 1888 with construction of a second line and a series of connecting spurs.

It was also in 1855 that the Black River Canal came into service, linking the lower Black River at Carthage with the Erie Canal at Rome. The words of the well-known folk song convey the flavor of these inland waterways perfectly:

Git up, there, mule, here comes a lock.
We'll make Rome 'bout six o'clock.
And every inch of the way we know,
From Albany to-o Bu-u-ffa-lo-o.

Flour, Timber, and Pig Iron

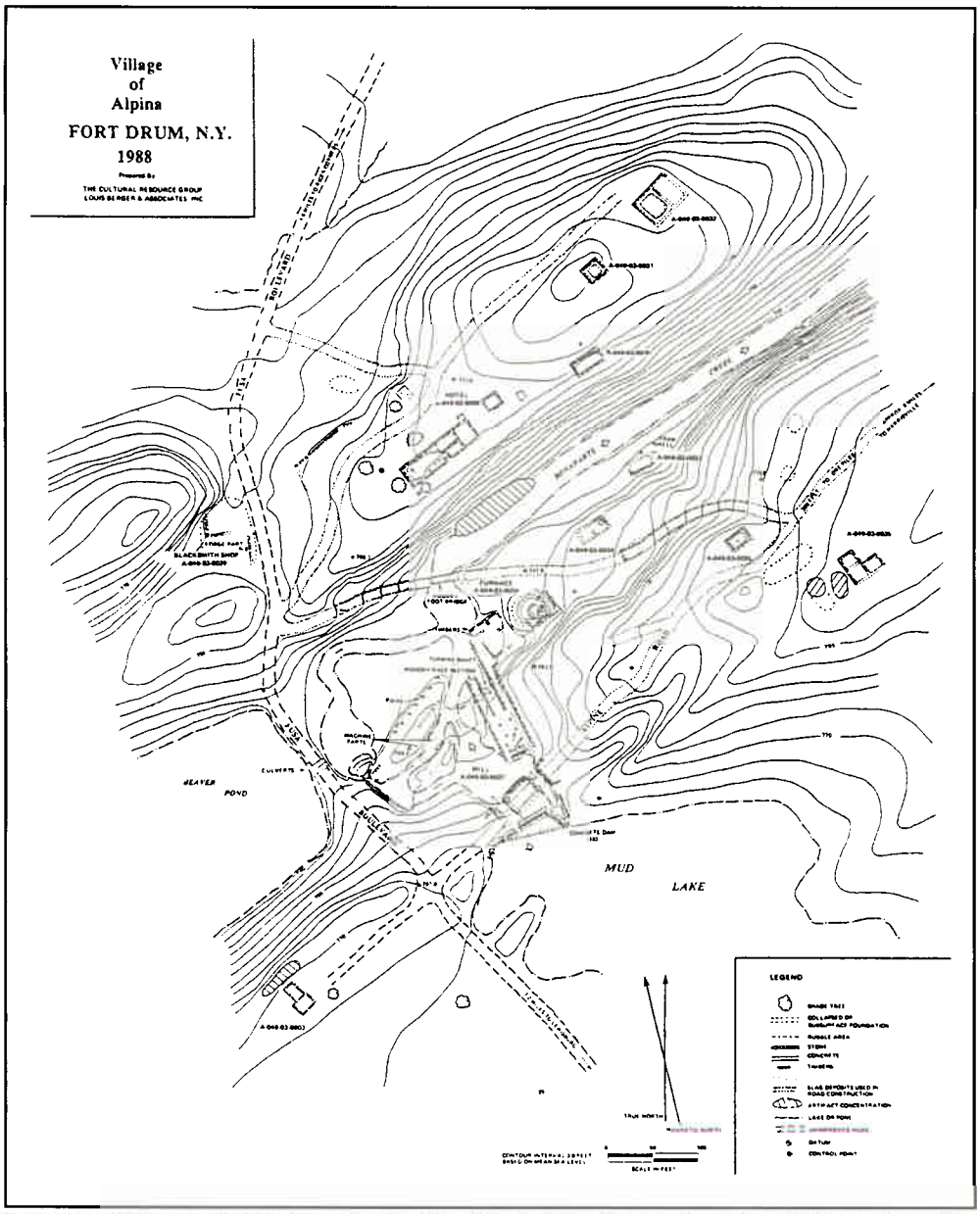
The growth of road and rail systems went hand in hand with that of early industries. First came grist mills and sawmills, essential to any real development. Without the grist mill, there was no flour or meal. Without the sawmill, all lumber had to be hand

FIGURE 21

TSC PHOTO BRANCH, FORT DRUM, NY

The ruins of the Lewisburg Iron Furnace today, with the Indian River in the background.

FIGURE 22 Map of the village of Alpina in 1988.



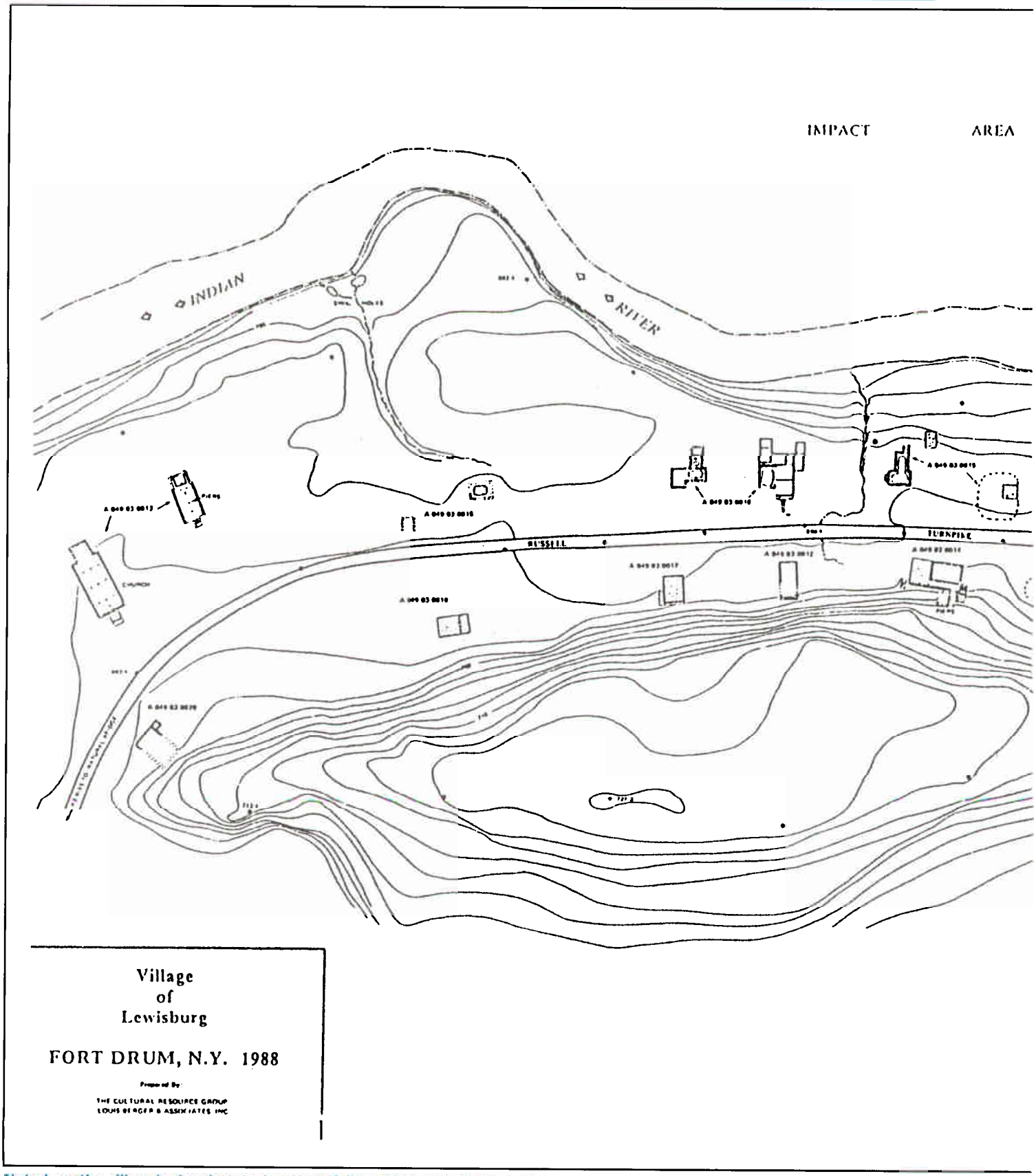
Because of the area's hilly topography, the village did not sprawl out along the road as did Lewisburg *(see pp. 30–31)*, **but adopted a more clustered form where the land was flatter.**

split. By 1820, there were fifty-four grist mills and 107 sawmills in Jefferson County.

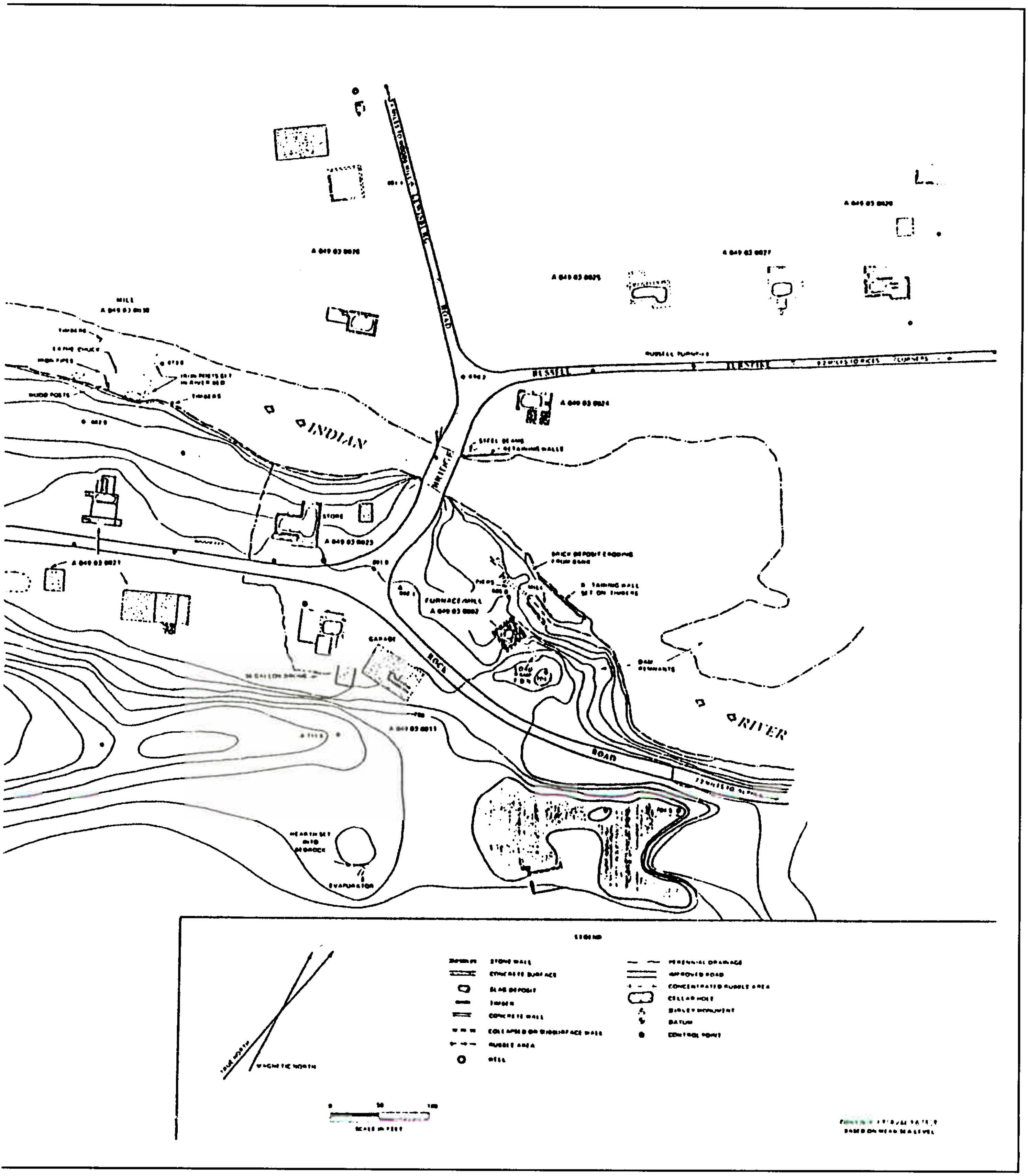
There was another attraction to local industry in the North Country—iron ore, which was scraped from local surface mines and laboriously transported by mule-drawn wagon. At the time of the archeology project at Fort Drum, remains of four iron furnaces were to be found on the post. Two above-ground examples of these were meticulously measured, recorded, and documented according to the requirements of the Historic American Engineering Record (HAER) in order to preserve information about these important early forms of iron technology.

The earlier of the two ironworks was the Lewisburg Furnace, located in the Town of Diana, on the south bank of the Indian River. First built in 1831 and rebuilt at intervals

FIGURE 23 Map of the village of Lewisburg as it was in 1988.



Note how the village's development pattern follows the axis of the road.

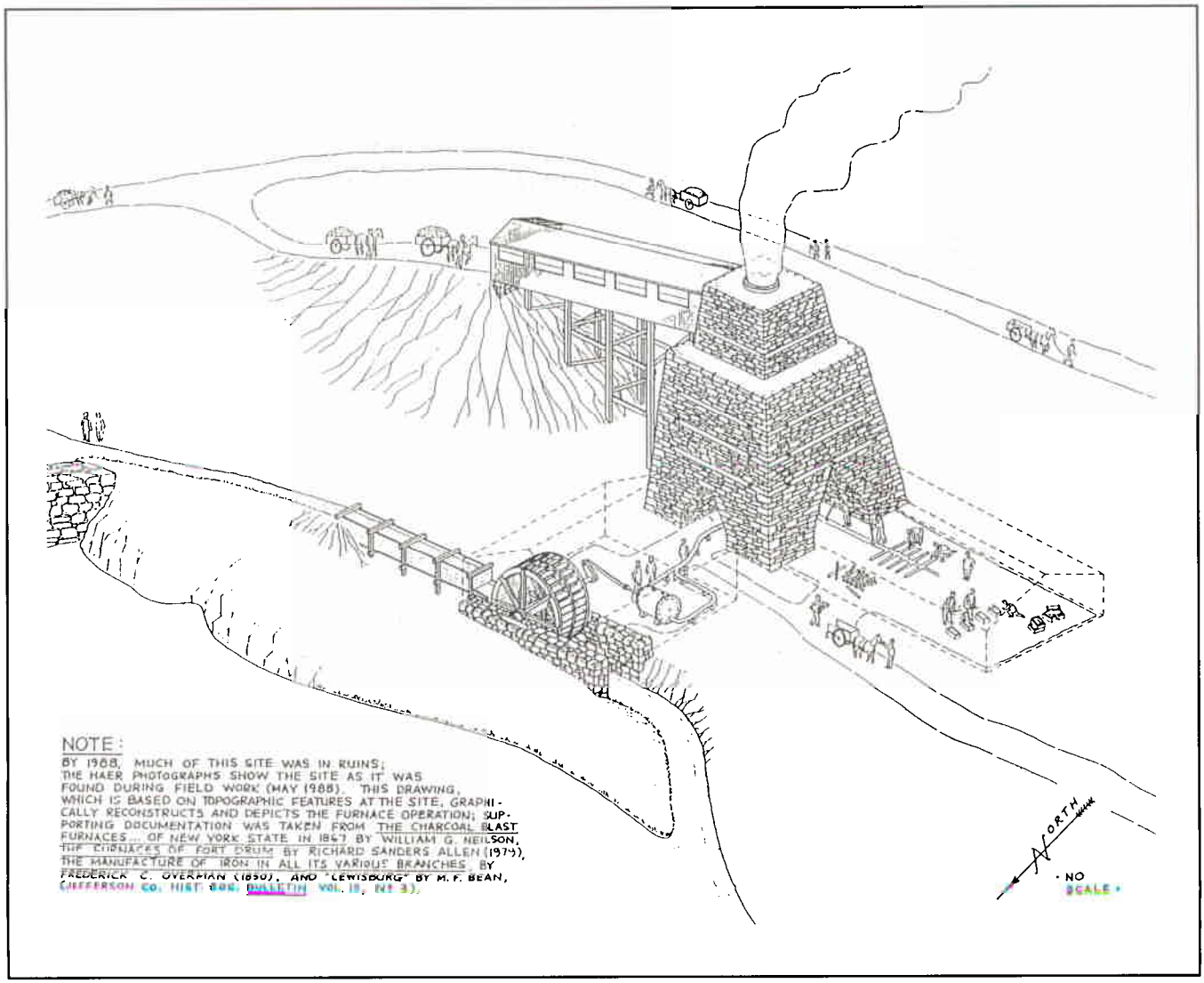

INDIAN
RIVER
ROCK
ROAD
STORE
GARAGE
FURNACE/MILL

afterward, it was originally erected by four Frenchmen, Lewis Fennel and the brothers Nicholas, Constant, and Charles Jomaine, although it later passed into the control of James Sterling. By the 1850s, Sterling had become the area's largest ironworks entrepreneur and was also involved in the operation of several other furnaces in the general vicinity, including the post's other surviving ironworks, the Alpina Furnace.

Like many nineteenth-century entrepreneurs, James Sterling concerned himself with the lives of his workers as well as with the progress of his business. Since many of the Lewisburg furnace workers at this time were Irish, Sterling and his partners donated land for a new Catholic chapel. They also drained nearby swamps (probably as a health measure), cleared land, and improved local roads. In recognition of these good works, the village officially changed its name to Sterlingbush. By 1873, the furnace's capacity was listed at 1,500 tons of iron per year. In addition to St. John's Catholic church, it supported a hotel, a post office, two stores, and a sawmill.

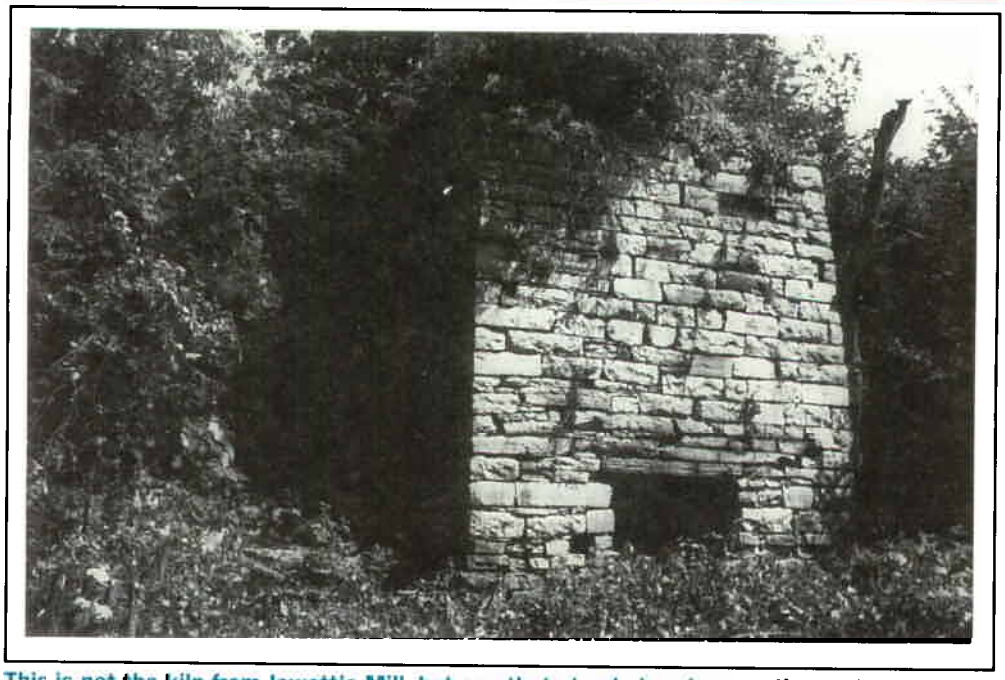
The days of the Jefferson County iron industry were numbered, however. The problem was that charcoal-fired furnaces of the type used by Sterling and the other iron

FIGURE 24 An artist's re-creation of the Lewisburg Iron Furnace on the Indian River.



HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE. JOHN BOWIE A.I.A. AND DIANNE POHLMANN, 1989

FIGURE 25 A typical kiln of the mid-nineteenth century.



This is not the kiln from Jewett's Mill, but one that stood elsewhere on the post.

makers in the area were outdated and were being replaced nationally by facilities that relied on resources, such as coal, that were not available in the North Country. The Lewisburg furnace was bought in 1869 by the Jefferson County Iron Company, which by 1881 had phased out the furnace in favor of mining operations. In the years that followed, the village's main sources of employment were the White Rock Lime Quarry and, briefly, the leather tanning industry, which it served as a collection point for tanbark. As if to signal the end of the Sterling-dominated iron industry, the village reassumed its original name of Lewisburg (originally spelled Louisburgh). It was still occupied, though reduced from its peak population, when the Army acquired it in 1941.

Alpina

The Alpina Furnace was built in 1848, on a lot that had been bought by a group of Swiss and French investors. Its name reflects its location, in the hilly northeastern section of the Fort Drum Reservation. An early deed described the facility as possessing "buildings . . . with divers machinery and appurtenances and other structures." For a short time in the 1850s, the furnace's owners leased it to James Sterling, but in 1853 they sold it to Stephen Crocker and Zebulon Benton. Little is known of the former, who may have been a "silent partner" in the operation, but Benton was a somewhat flamboyant local character who had married Caroline Savage, a natural daughter of Joseph Bonaparte. Benton spent a good deal of Caroline's considerable fortune in a series of none-too-successful business ventures.

LIME KILNS

The local limestone had other uses besides as a flux in iron manufacture. A lime kiln, dated sometime in the 1860s, stood on the Jewett's Mill site, north of Holbrook Road, between Sanfords Corners and Evans Mills. Constructed of mortared stone and fire brick, kilns of the period look rather like sawed-off pyramids.

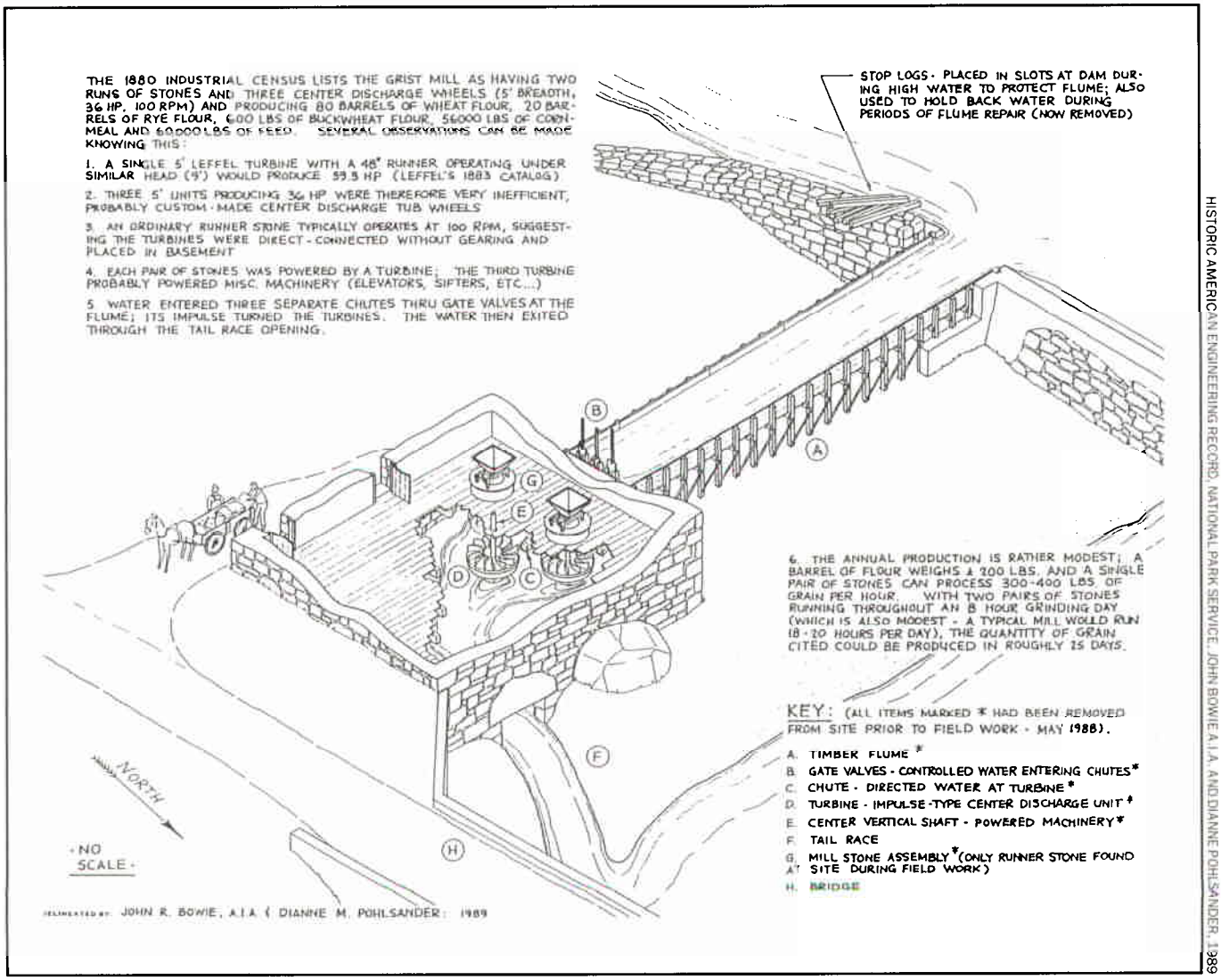
Such kilns produced "water lime," meaning hydraulic cement or plaster, by burning fragmented limestone in alternating layers with wood and charcoal. The lime was withdrawn from the bottom of the kiln while further limestone and fuel were added through the top. The lime was also used in agriculture.

The archeology project's settlement-pattern studies suggested that lime kilns tended to be located near their raw materials (limestone and wood) and near rail lines for ease of shipment.

The New York State industrial census of 1855 described the Alpina Furnace as representing $83,000 in capital investment, plus $4,000 in tools and machinery. The furnace required 1,600 tons of iron ore and 21,000 bushels of charcoal in order to produce 314 tons of pig iron. For this work, the owners employed sixty men and paid them $26 a month. The census also mentioned a sawmill at Alpina, which produced building boards from pine and road planks from hemlock. Work at the sawmill was neither as highly paid nor as labor-intensive as that at the iron furnace; the sawmill employed only two men, who earned $20 a month. This difference in wages presumably reflects both the skilled nature of iron work and the greater hazards attendant on it.

In 1871, the Bentons leased the ironworks to Lott Frost, who is notable here because he was father-in-law to Loveland Paddock, one of the Watertown Paddock family whose store ledgers will play such an important role in the later parts of this story. By this time, the Fort Drum iron industry was already in decline. Frost's management ended when his son-in-law went bankrupt, but although Benton retained ownership, little if any iron was produced at Alpina after about 1873.

FIGURE 26 Artist's re-creation of Wood's Grist Mill.



The village of Alpina never fully recovered from the collapse of the iron industry. Its sawmill continued to operate for a few decades, but by 1922 it too was silent and by 1939 the village itself had been abandoned and was described as being "in ruins."

Both the Lewisburg and Alpina furnaces were fired with charcoal and belonged to a type called "cold blast." This meant that cartloads of iron ore, limestone, and charcoal were introduced into the stone furnace structure at the top, having come up an earthen ramp and across a wooden bridge as shown in Figure 24. The carts would have been drawn by horses, mules, or oxen. In the winter, the poor state of the roads required the use of ox-drawn sledges.

At the lower level of the furnace, a water wheel was used to force a blast of air through the pipe leading into the base of the furnace from the left and directed into the burning mass by a nozzle called a tuyère (not visible). The limestone served as a chemical flux to carry away impurities (that is, slag), while the molten iron ran out through vents in the bottom of the furnace (also not visible) and into the criss-cross channels on the floor where it could be cooled and cut into "pigs" or market-size bars. The dotted lines in the drawing show the dimensions of the presumed shed under which this activity was carried out, although no shed survived on the property at the time when it was archeologically documented.

THE MILLER'S MARKET

Grist mills performed two types of work — "custom" and "market." In the former, an individual farmer might bring in a quantity of grain to be ground for his own use or resale. In the latter, the miller bought grain from farmers, ground it, and resold it to local individuals, shopkeepers, or (late in the period) regional wholesalers. The U.S. census of 1880 recorded that only a tenth of the Wood's Mill's production was custom work, a clear indication of the expansion of the market economy in contrast to the rural subsistence economy of earlier times.

In addition to using outdated technology, Fort Drum's iron furnaces were originally intended to process "bog iron," more properly called limonite, as well as magnetite and red ocher from nearby sources. As time went on, however, local ores were exhausted, and by the latter part of the nineteenth century it had become necessary to feed the furnaces with ore from St. Lawrence County. This put the Fort Drum furnaces at an obvious economic disadvantage. They were ultimately abandoned, Lewisburg in 1881, Alpina at some time prior to 1922.

The Dusty Millers

Another mill that survived on the Fort Drum Reservation and was documented for the Historic American Engineering Record was known as Wood's Grist Mill. Although built around 1860, it was probably typical of the earlier grist mills that dotted the countryside wherever a local stream provided power for a "mill seat." Wood's Mill was on the Indian River at the former village of Wood's Mill (also called Wood's Settlement), which occupied the far northern corner of the township of Wilna. Both the village and the mill were named for Jonathan Wood, an early settler who arrived in Jefferson County in 1833. By 1847, he had built a dam and created a "mill pond." The first surviving map of the property is dated 1855 and shows a sawmill, a church, and a schoolhouse. Deed research also reveals the presence of a "joinery" or carpenter's shop. Only nine years later, there were two sawmills and a grist mill. A cooper's shop made barrels, a wheelwright's made and repaired wagons, and a blacksmith's made iron fittings, tools and shoes for horses and oxen.

This is about the period when the mill shown in Figure 26 was in operation. Here, water from the river is drawn off through the timber flume at top right and passes through

the gates labeled B to turn the turbine mechanisms (D). (Earlier mills would probably have had the more familiar, vertical water wheels, called breast wheels, or horizontal tub wheels.) Up above the turbines, the grain was fed into the grinding mechanism through the square hoppers at G and ground between the upper and lower millstones. At left, a customer's cart stands loaded with bags of flour or meal. Missing from this picture are the noise of the grinding stones, the roar of the water, and the clouds of flour dust that coated every visible object. This fact is memorialized today in the still fairly common custom of bestowing the nickname "Dusty" on anyone surnamed Miller.

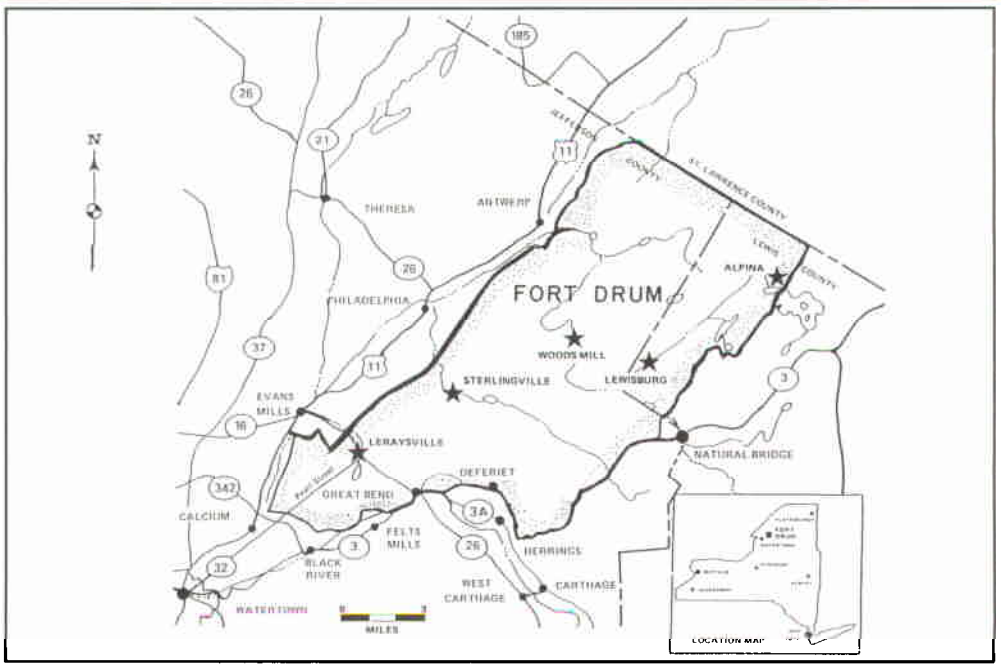
The occupation of miller was not without its dangers, as is shown by the fact that one of Wood's partners, a man named Lucius Clark, was caught and crushed to death in the machinery of a grist mill. The probate record of this event refers to it as "a natural death," which gives an interesting perspective on the hazards of nineteenth-century living.

The village around the grist mill continued to grow throughout the nineteenth century. By 1890, it had added two butter-tub factories and was recorded as possessing about sixteen dwellings. Eight years later, it had acquired a store and post office. The presence of a post office was often an important factor in the growth of a village. The need to send and receive mail attracted customers to nearby businesses as well, and post offices often served an auxiliary function as social centers where neighbors met and news was exchanged.

Wood's Mill acquired its post office rather late, considering that Antwerp, Great Bend, Evans Mills, LeRaysville, Sanfords Corners, Pamelia, Philadelphia, Felts Mills and Natural Bridge all had post offices by 1835. Evidently, however, the acquisition of a post office did not save Wood's Mill from declining population, although its ultimate abandonment did not take place until well into the twentieth century with the development of the commuter culture and the shifting of jobs from rural to urban settings.

In their heyday, the mills and iron furnaces clearly provided important sources of

FIGURE 27



Stars mark the Fort Drum historic villages that were mapped in the course of the archeological project.

employment and became focuses for settlement. Other major factors in village growth were post offices, as mentioned above, and rail stops. None of the villages discussed so far was on the railroad.

The growth and decline of Wood's Mill, Lewisburg, and Alpina was typical of many rural villages in the Fort Drum area. At the time of the archeology project, all had been abandoned as residential centers after the Army's acquisition of the Reservation in 1941 and 1942. As part of the program, five of the villages were selected for detailed mapping and preservation in place. They were chosen on the basis of both the archeological interest of their surviving remains and their varied locations, histories, and relations to the overall story of development in this part of the North Country. Three of these villages, Wood's Mill, Alpina, and Lewisburg, have already been sketched above in connection with the descriptions of the mills. The other two villages were Sterlingville and LeRaysville, the latter being the only village located in the cantonment area.

Aristocrats and Friends

The village of LeRaysville was not in fact founded by James Leray, although he built his mansion on a rise of land overlooking it. The place was originally called Brown's Mill after Benjamin Brown, who built a sawmill at a ford on Pleasant Creek in 1802. Nevertheless, the embryo village became associated with and named after Leray a few years later when the region's largest landowner set up his land office at the mansion. (The land office remained in operation until 1835, shortly before the Leray family returned permanently to France.)

After Leray's 1805 sale of a large tract of land to a group of Friends from Pennsylvania, referred to earlier, members of the Society of Friends settled in the vicinity. By 1816, they had built a stone meeting house northwest of the village. Four years later, a post office, store, tavern, and schoolhouse had been added to the existing grist and sawmills. By 1835, there were two taverns and forty houses. Thus in its first thirty years, the settlement had grown from a hamlet clustered around a ford and a mill to a small center of commercial, social, and religious activity serving the surrounding farms. In the mid nineteenth century, the village saw a version of the classic fairy tale when William Phelps, son of the village miller, married Julia Payen, daughter of Jules René Payen and heiress to the mansion.

The decline of LeRaysville relative to that of the larger towns is evident from population figures of the late nineteenth century. Significantly, neither a rail line nor a major road had created transportation links between the village and the larger world. Nevertheless, it was located along the established route between Evans Mills and Great Bend and remained the site of several small businesses and manufactories, including concerns that made cheese and cheese boxes, axe helves, shingles, boots and shoes. LeRaysville was never abandoned until bought by the Army.

Iron Town

The village of Sterlingville was located on Black Creek, within the township of Philadelphia. There was a sawmill there as early as 1824, but the village's story really begins in 1836, when James Sterling built a sawmill there to replace the earlier one, which had since been abandoned. At that time, the place had only three houses and was so small it entirely

IN 1830

- *Andrew Jackson is President.*
- *Britain's dissolute King George IV dies at age 67; he is succeeded by his brother, King William IV.*
- *It takes 300 hours for a single U.S. farmer to grow 100 bushels of wheat.*
- *Cholera runs wild in Europe, killing 900,000 this year.*
- *There are revolutions in France, Belguim, and Poland. Many flee to the United States to avoid cholera and political unrest.*
- *U.S. population is 12.9 million, of whom 3.5 million are black slaves.*
- *Death of Simon Bolívar, the Great Liberator of Latin America.*

escaped the notice of Thomas Gordon, author of a Gazetteer of the State of New York that was published in that same year.

In 1837, James Sterling built a blast furnace in Sterlingville and shortly afterward formed the Sterling Iron Company, with other facilities at Sterlingbush (Lewisburg) and Sterlingburg. The company enjoyed an initial success, but apparently encountered difficulties from the start, being subject to periodic reorganization and rebuilding of the furnaces. Nevertheless, it attracted secondary businesses to Sterlingville, among them an iron forge and a bar-iron manufactory. By 1855, there were 316 persons in the village, which also boasted a Catholic church, a post office, a hotel, and a blacksmith's shop.

The Sterlingville Furnace operated somewhat erratically throughout the middle years of the nineteenth century, went out of operation altogether in 1873, and was briefly revived in the late 1870s under the auspices of the Jefferson County Iron Company. However, iron processing at Sterlingville had almost wholly ceased by 1890.

Fortunately for the village, by the late 1870s, it had become a stop on the Rome, Watertown, and Ogdensburg Railroad, which helped to sustain it as a viable community. The picture painted by the gazetteers is that of a fairly busy place, dominated by the various aspects of the iron industry and providing services to families on outlying farms. In the last part of the nineteenth century and into the twentieth, it would see renewed activity associated with the timber industry. Sterlingville was still inhabited when it was taken over by the Army in 1941.

The five villages recorded by the Village Mapping Program, described above, were representative of the villages on the post as a whole, but there were certain variations among them. LeRaysville and Sterlingville, the two largest communities, were also the only two to be situated in the flatter, lowland portion of the reservation and the only two to show signs of deliberate planning in their layouts. In contrast to the other three villages, LeRaysville and Sterlingville both had right-angled street grids and rectangular house lots. No such pattern is discernible in Wood's Mill and Lewisburg (located in the more rolling landscape that divides the lowland from the hillier part of the reservation) or in Alpina. The latter was the smallest of the five villages, and its layout was clearly dictated by the rugged terrain of its situation, although that same terrain contributed to the success of its water-powered mills.

Looking back at Figure 27, we can see the way in which the villages dotted the landscape. No one in the area would have lived farther than six to nine miles from a village by road.

Not shown on the map are some even smaller areas of settlement, called corners. A typical example would have been Ingersons Corners, a tiny place at the intersection of Bedlam Road and Cool Road. In 1816, a schoolhouse was built there, followed by a wagon shop and a smithy. A sawmill that stood nearby failed after a few years for unrecorded reasons. Unless they grew to village status, corners did not generally support post offices.

School Days

A common, but not invariable feature of the corners was the schoolhouse. Sometimes, however, schoolhouses stood more or less by themselves in locations accessible to a group of pupils not otherwise served. Schoolhouse No. 4, which was located in LeRay Town just

IN 1840

- *William Henry Harrison is President.*
- *Britain's Queen Victoria is three years into a sixty-three-year reign.*
- *Next year, the New York State Fair, held at Syracuse, will establish a tradition of state fairs, aiming to advance the domestic arts and agriculture.*
- *It takes 233 hours for a single U.S. farmer to grow 100 bushels of wheat.*
- *The World's Anti-Slavery Convention opens in London. Some influential American Abolitionists refuse to attend because women are excluded.*
- *Last year, Abner Doubleday, a West Point cadet, devised the rules for baseball, a game that has been played in various forms since at least 1784.*

FIGURE 28

This photograph from approximately the 1880s shows teachers and students in front of Fort Drum's Schoolhouse No. 9, which was built of clapboard rather than limestone.

to the southeast of Bedlam Road, within a mile of the Victor Cooper, William Cooper, Jr. and Taggart farms (among others), was an example of this type of rural school building.

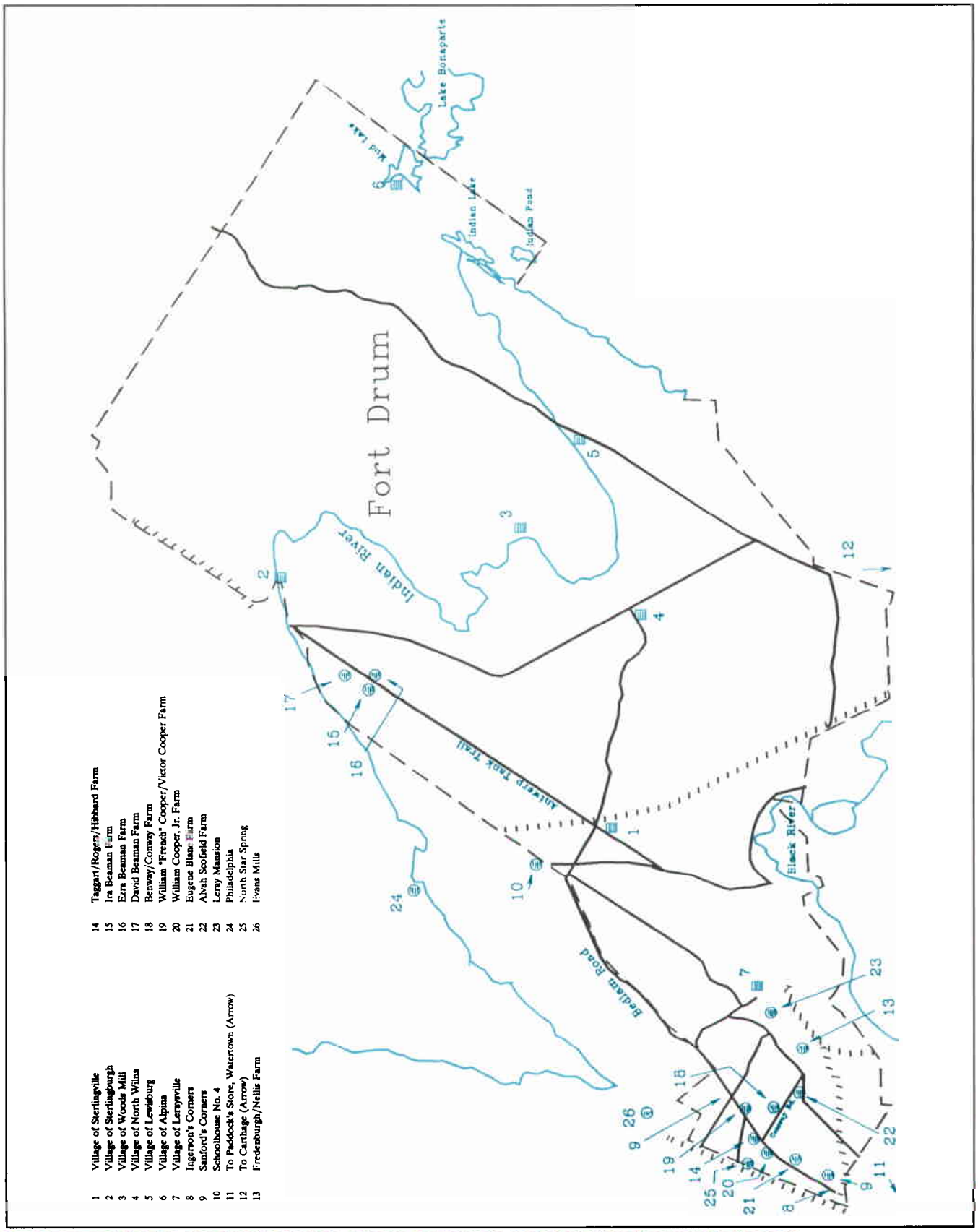
The archeology showed that it had been a one-room structure, but was not the proverbial "little red schoolhouse," since it was built of limestone. The archeology suggested the stone had been quarried on a nearby hillside and set in a manner that was not quite up

FIGURE 29

COURTESY OF FORT DRUM

Street view of Leraysville in about 1940, showing the house and barn belonging to H. Jerome.

FIGURE 30



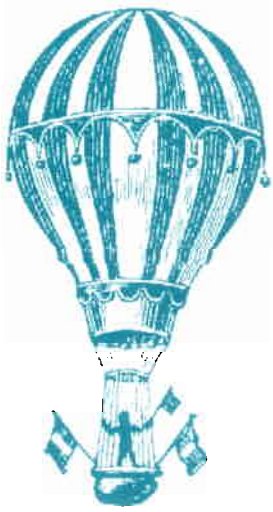
TIMELINES, INC.

Fort Drum and vicinity, showing the historic villages, farmsteads and other sites discussed in the text.

to local professional standards. In other words, it may have been built by local volunteer labor. The building's interior walls had been plastered and whitewashed.

The school was built on a quarter-acre of land donated for the purpose in 1816 by a farm family named Townsend, and later expanded to about an acre. A school-district minute book owned by the Jefferson County Historical Society (not necessarily for this school district) reveals that the district trustees were usually local farmers and, somewhat surprisingly, the school year varied from four to ten months. The teachers were at least occasionally local women, who were in charge of between twenty-two and eighty-three pupils. Teachers often boarded with nearby families, as Ella O'Weaver did with the David Beaman family *(see page 63).*

Because the site would be destroyed by a proposed widening of Bedlam Road, it was examined at the Stage III level. Artifacts retrieved from the surrounding yard surfaces and the foundation interior painted a most evocative picture. The excavators were somewhat surprised to find how domestic the site appeared. There were many broken ceramics, bottles, and other kitchen-related items, in addition to a much smaller collection of slate pencils, buttons, toys and other objects one might associate with a school. The conclusion drawn was that the school had also been used for auxiliary purposes by the community, had been in fact a social center for occasions such as pot-luck suppers. Religious events may also have taken place there, as witness the fact that Charles Grandison Finney, a prominent evangelist of the time, is said to have preached his first sermon in this schoolhouse (sometime before 1824).



In addition to the villages, the corners, and the schoolhouses that served as social centers, there were formally incorporated towns. However, no towns are located within the reservation's boundaries. In the nineteenth century, the nearest towns would have been Watertown, Carthage, and Sackets Harbor.

Balloon Ride

If, in imagination, we set ourselves in the 1850s to overfly the future Fort Drum Reservation, perhaps in one of the hot-air balloons of the period, we will see this network of villages and corners, roads, railroads, and rivers, the latter punctuated by dams, mill ponds, and mills. We can see little plumes of smoke from the iron furnaces and from the steam engine that chuffs its way northward past Sterlingville. We may even be able to hear the train, for balloon travel is quiet.There are carts and wagons on the road, especially near the villages and mills, and the church steeples reach silently toward the sky, waiting for Sunday. Beyond all these stretches the open land dotted with farmsteads and occasional schoolhouses. It would take a very keen eye indeed to note any prehistoric remains, but from the air it is sometimes possible to discern the outlines of vanished longhouses and palisaded villages. In any case, the signs of previous inhabitants were there for those who knew where to look.

Gone West?

The future of the North Country in the hundred years following 1840 lay neither in the wheat fields of previous decades nor in the iron furnaces, important though they were to the region's development. In terms of agricultural history, wheat belonged to the Great Plains with their deep black soils and wide-open spaces, and already in the mid nine-

FIGURE 31

LBA archeologist Marty Dudek works inside the foundation of a nineteenth-century carriage house. Note how the site has been carefully divided into excavation squares using lengths of cord. Each square has a number such as E7-N16 that relates it to the site datum point.

teenth century the wheat-growing focus of the nation had moved west. Conventional history books, in fact, describe a general agricultural decline in the Northeast, dating to about this period. Certainly, the stony farms of New England were increasingly unable to compete with the fertile plains of the Midwest, leading the region to focus on commerce and manufacturing. But grain is not the only possible agricultural product, and the North Country is not New England.

In 1850, the New York State Agricultural Society made the following notation in one of its reports:

> *A great change has come over the Agricultural interests of the county, by a largely increased attention to the dairy, instead of grain growing. Experience has proved the change to be of great importance by a rapid increase of wealth and prosperity among that class of farmers.*

It was in fact this change that enabled the farmers of the North Country to buck the downward trend in farm prosperity that has been documented elsewhere. Throughout the remainder of this story, the focus will be on Fort Drum's rural farmsteads. Having looked at the villages and industries, we will now shorten our focus to farm locations, farm buildings, and ultimately to six individual farmsteads and the families who lived there.

Patterns of Settlement

When historic archeologists look at large tracts of land containing hundreds of sites, they are interested in much more than making collections of artifacts. As we have seen already in discussing the Fort Drum Reservation's prehistoric sites, the question of just where various types of sites are likely to be found plays a large role in predictive modeling *(see inset, page vii, and Figure 1)* and in assessing the significance of individual sites.

Accordingly, a major task of the Fort Drum archeology project was to compile a computer data base relating to farmstead location and layout. In the course of the project, over 300 farm sites were inventoried. Of those, eighty-three were subjected to preliminary (Stage I) testing, twenty-seven were excavated at the site-examination level (Stage II), and two were selected for data recovery (Stage III). In addition, thirty-one sites were selected for detailed mapping of farm structures and their relationships to one another.

One finding that emerged early on was that with very few exceptions (such as the Leray Mansion, which was hardly typical of the area) the farms had a strong tendency to be located within 100 feet of the nearest road and close to a water source (a stream, a spring, or a potential well site). This placement sounds unremarkable only because it is so typical of the northeastern rural landscape that most of us unconsciously assume that it is natural. Yet it was a pattern quite different from that found in most of Europe at the time, and one that early visitors to the United States remarked upon, not always positively. For example, the Abbé Claude Robin, a French traveler of the late eighteenth century, compared Connecticut unfavorably to the more dispersed rural landscape of Maryland. Perhaps the Abbé (whose title tells us that he was an abbot) had not experienced a northeastern winter. Probably, as a member of a monastic religious order, he had little basis for understanding the local notions of rural neighborliness and mutual aid.

Good Neighbors

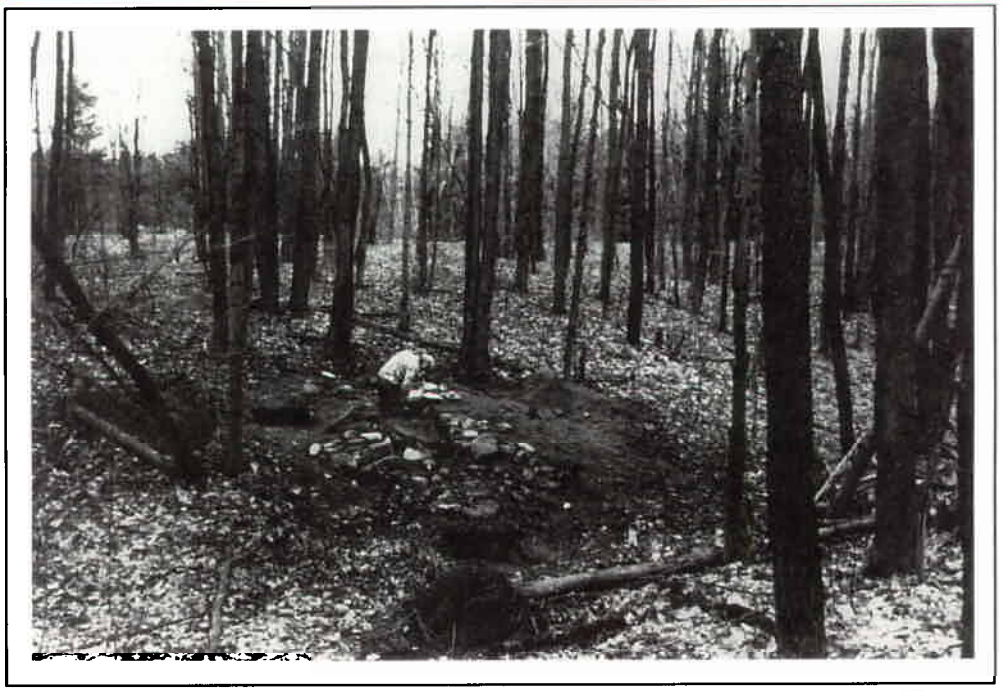
In practical terms, a rural neighborhood was a set of farms and the centers that served their ordinary needs, such as the schoolhouse, church, mill or store. This was an area defined in 1982 by historian John Stilgoe as that which lay within an hour's walk of any given farmstead. Why, then, as Abbé Robin seemed to suggest, lengthen the walk or the distance to be cleared of snow in winter?

The historic-settlement data from Fort Drum served to support these ideas about neighborhood and community, which had previously been proposed but not subjected to field testing. In addition, they pointed up a little-noted phenomenon, that of the "kin-related farm cluster," which, in those days before the automobile, may have served to give family members access to jointly run cheese and dairy operations. One example is the Jewett family. Ezekiel Jewett, Sr. had purchased farmland along Bedlam Road as early as 1819. Ultimately, there were no fewer than nine Jewett family farmsteads along the stretch of Bedlam Road between Sanfords Corners and Bedlam Road's intersection with Conway Road.

The pattern related partly to inheritance customs, since a farmer might leave his (or in the case of a widow, her) farm land in shares to the various children. Nevertheless, the ethic of mutual aid, which applied strongly to unrelated neighbors, applied all the more to neighbors who were blood kin. Other Fort Drum farm families whose farms occupied kin-related clusters were the Coopers, the Taggarts, and the Beamans. We will hear more of these three families later.

Farm life in the nineteenth century offered many opportunities for shared work and social support, whether between kinfolk or neighbors. The building of schools, the raising of barns, fire fighting, road maintenance, weddings, birthings, sicknesses, funerals, disaster relief, hog killing, quilting bees or corn huskings—there was always some reason to call on the neighbors. There would also have been many occasions for casual exchange

FIGURE 32 Remains of a typical maple-sugar-processing area at Fort Drum.



The principal visible feature is the stone hearth at which the kettles of sap were boiled down into syrup or sugar.

or loan of tools, machinery, labor, and livestock. Thus the positioning of the Fort Drum farms in a way that fostered a feeling of community was merely sensible.

Roads were not the only significant factor in the siting of the Fort Drum farmsteads, but they did play a larger role than many might have predicted. Water, somewhat surprisingly, appeared to have been less important. The comparative indifference to water sources is explained by the fact that in this landscape of lakes, rivers, and adequate rainfall, wells (and as a back-up in dry weather, cisterns) were both practical and reliable for farm families at this period.

Soils, too, influenced site selection. The brothers David and Ira Beaman established farms facing each other across Bedlam Road and apparently built their two houses atop slight knolls that are the remains of Ice Age sand dunes rising above deposits of lake-bed silt and clay. The dunes had the advantage of being easily excavated and providing drier cellars.

Finally, in two cases, that of the Leray Mansion and the Hall-Martin Farmstead, sites seem to have been chosen simply because they offered fine views of the surrounding country.

Trash Dumps and Sugarbushes

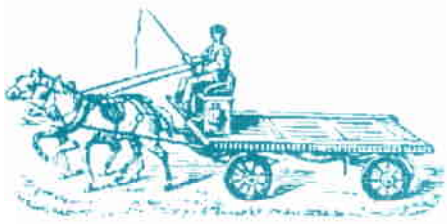
Two other types of historic sites at Fort Drum turned out to be less predictably located than the farmsteads themselves. Trash dumps, always of great interest to archeologists, proved to have a strong tendency to occur on slopes, a significant finding since over 80% of the reservation is level or nearly level. Other factors that apparently attracted dumps were poor drainage (presumably because trash was being used as fill) and distance from roads (no doubt for aesthetic reasons).

A different situation applied to sites used in maple-sugar processing. The North Country is rich in sugar maples, and many farmers kept a "sugarbush" where, in late winter, the rising maple sap could be tapped from the trees, collected in buckets, and then boiled down to make maple sugar or syrup. Sugaring sites often turned out to lie at considerable distances from both roads and farmsteads, placing them in areas where few other types of sites could be expected. This was a useful finding in terms of future archeological surveys, which should thus not neglect these seemingly little-used "outback" areas.

Lines and Squares

Within the individual farmsteads, the archeologists were also interested in the layout of the farm buildings with relation to one another. The survey and mapping program found four general patterns of farm buildings. One was the hollow square or open courtyard plan, which is strongly influenced by English tradition. In this plan, the house generally faces the road, with the barn directly behind it or slightly to one side. These two main buildings are usually parallel to one another, although in a few cases they are at right angles. At one side, there is a line of open sheds that forms the third side of the square. Other outbuildings opposite the sheds may form the fourth side. About a third (29%) of the farms in the Fort Drum sample displayed this pattern.

Another common farmstead plan (16% of the sample) was a linear one, in which both house and barn are parallel to and usually fronting on the road. Other farm buildings may be located between the house and barn or, in an arrangement particularly typical of New England, the house, barn, and outbuildings may be attached to one another. The "attached barn" style was most widely practiced after about 1830. Still another variation on the linear plan, although a rare one at 3%, sees the barn at right angles to the house and behind it. This is called the linear square plan.



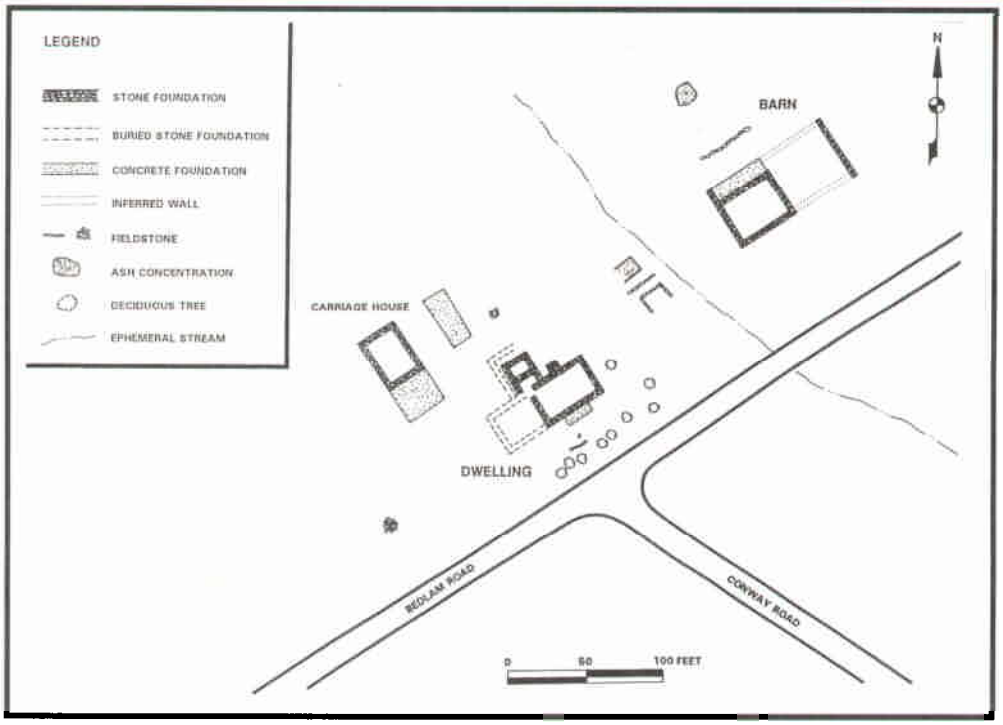
Architectural historians see the linear farm plan as descending rather directly from the European peasant home, which was likely to be a single structure, where the farmer and his family lived in one end of the building and the animals lived in the other. Although also found in England at the time when the colonists were coming to North America, this farm plan is more closely associated by some historians with Scotland, Ireland, and Wales.

A plan that did not have any direct roots in the Old World was the bisected farmstead, wherein the farm complex is divided by a public road, although in other respects it may follow either the linear or the courtyard pattern. Quite a few of the Fort Drum farms (26%) were built on this plan, which clearly made it easy to load wagons bound for market, for example, while causing no inconvenience in a time period when perhaps six wagons a day constituted heavy road traffic.

Finally, there was a type of plan that might be called miscellaneous, or none-of-the-above. There were as many farmsteads in this category as there were in the bisected category (26%). In most, the barn and house were at right angles, Perhaps the third and fourth sides of the courtyard were missing or had never been constructed.

In studying farmstead layouts at Fort Drum, the LBA archeologists had two expectations that were not met. One was that it would be possible to tell from structural details just which farm functions had been served by individual outbuildings, whether they were stables, machine sheds, smoke houses, sheep barns, pig pens, hen houses, corncribs,

FIGURE 33



The linear farmstead plan as shown at the Taggart/Rogers/Hibbard Farmstead.

manure sheds, well houses, milk coolers, cold cellars/ice houses, woodsheds or pump houses. In actuality, it turned out that most of the farm structures, with the exception of barns, milk coolers, and silos, were quite "generic" in their construction, meaning that foundation types, placement of openings, dimensions, and other features remaining in the ground after demolition simply didn't offer enough information to support conclusions about a particular building's function.

The other unmet expectation had to do with modernization. Work done on nineteenth-century farms in other parts of the country, Pennsylvania for example, had suggested that the changeover to larger-scale, more mechanized farming that took place in the later part of the century should be reflected at Fort Drum in the form of new and specialized farm structures. What the archeologists found instead was something that might be called "creative conservatism," a trend that had already been mentioned in written sources on the region. There was plenty of evidence of change on the farms, but it was change in the context of adding on, recycling, and restructuring. Buildings were moved from one location in the farmyard to another, ells were added and demolished, structures were torn down and the materials reused elsewhere. Barns grew larger as time went on, but except for the appearance of concrete floors (which were easier to clean) at about 1900 and the advent of silos somewhat earlier, there was very little evidence of any sort of grand-scale change in agriculture.

Throw-Aways

The one aspect of farm life that the archeologists found to change noticeably over time was precisely the one that most attracts archeologists — trash disposal. In the early nineteenth century, as in all the centuries before it, the common practice was to dump the

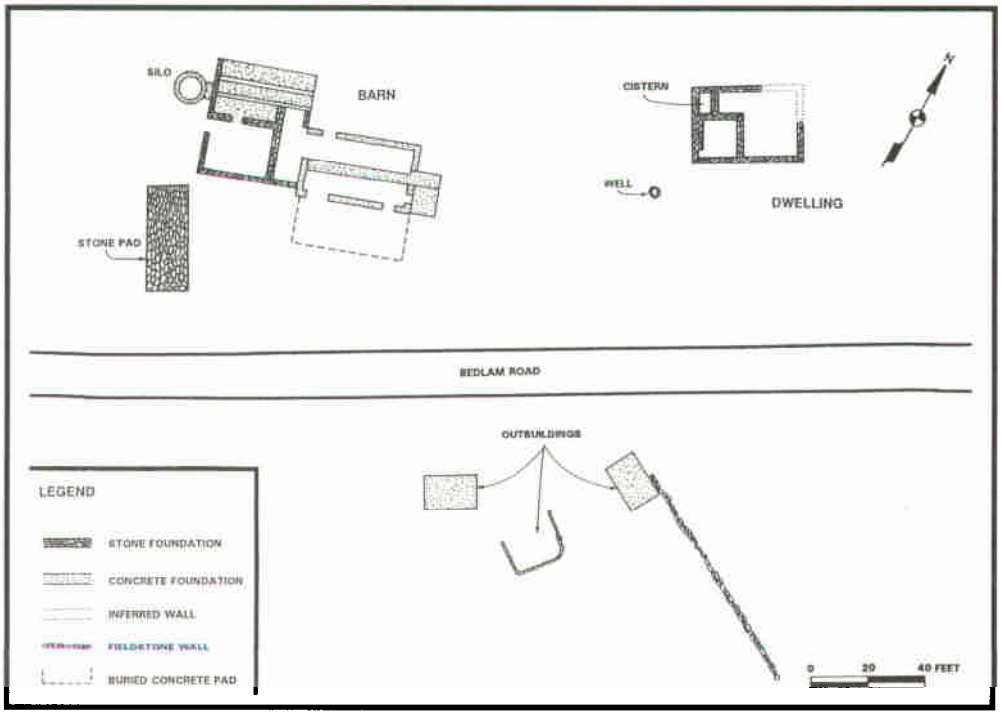
kitchen refuse in the backyard, more or less at will. Later in the century, probably as a result of an improved understanding of public health coupled with a concern for aesthetics, farmers could be seen to be creating separate trash heaps or middens at some distance from the house. There were also some instances in which table refuse was disposed of in one spot, while another was chosen for dumping of butchering waste (which would have been both smellier and, on occasion, bulkier). In the final stage of this process, around the turn of the century, some residents had begun to haul their trash to more remote locations, somewhere in the back lot, out of sight of both the road and the farm itself. It was these trash dumps whose preferred locations were on slopes or in gullies or ravines, as stated earlier.

House and Home

As to the farmhouses themselves, nearly all were of frame construction, either rectangular or, more commonly, L-shaped. They tended to favor the so-called "massed plan," with a center hall and two rooms on either side at both first- and second-floor levels. The front doors were commonly at the center of the long side and faced the road. Quite often a wing or ell was added to the original house, usually to accommodate the kitchen. This was a plan typical of late eighteenth- and early nineteenth-century New England.

The other common house plan was one called the gable-front, in which the narrower, triangular cross-section of the roof faces the road in just the manner of a child's typical house drawing. Most common after 1820, this is a style also known as Greek Revival, which became very popular in both the Northeast and the Midwest. In this plan, the door and the interior staircase are at one side of the facade.

FIGURE 34



The bisected farmstead plan as shown at the Williams/Rogers/Cole/Kissel Farmstead.

Barns, English and Otherwise

Beyond, or behind, or across from the house was the barn. American barns are magnificent, and endangered, structures. Houses continue to be lived in, sometimes for centuries, but barns in the age of frozen food, Big Macs, and agribusiness are succumbing to weather, fire, and development at an alarming rate.

The barns on the Fort Drum reservation were of two general types: the English barn and the basement barn. English barns are straightforward structures, rectangular in plan, with the door in the middle of the long side and a second-story door in the gable end, through which the hay was loaded into the hayloft, often by way of an earth and stone ramp.

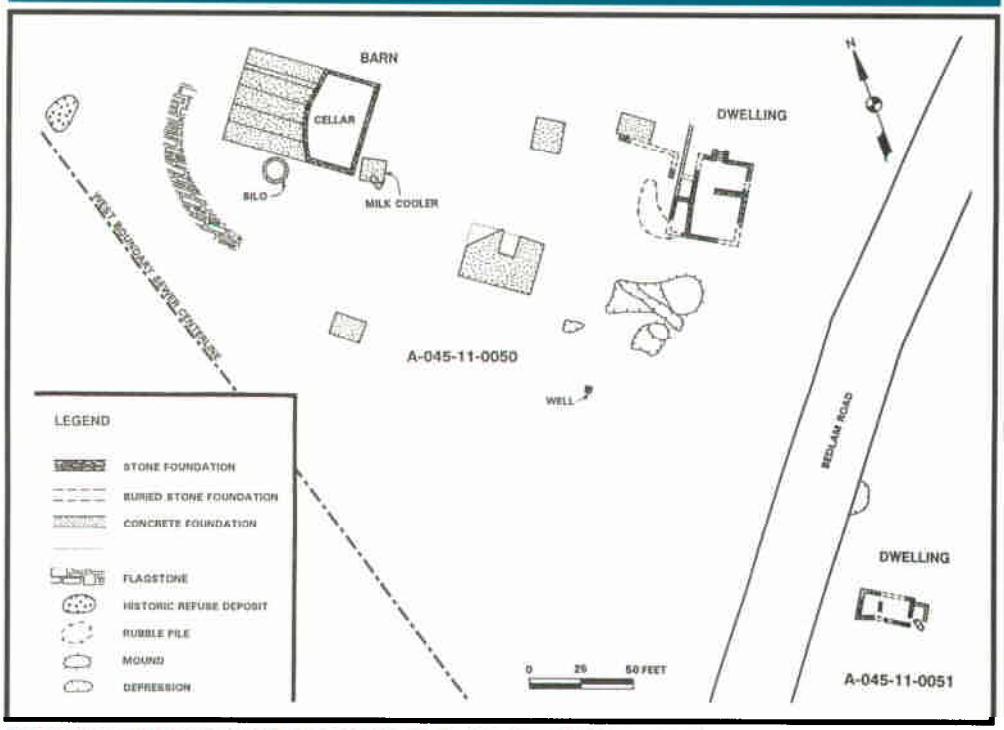
Basement barns resemble the Pennsylvania bank barn or Sweitzer (meaning the German or "Pennsylvania Dutch") barn. Both of the latter are built on two levels, with livestock on the lower floor and an upper floor that is used for feed, threshing or equipment and reached via an earthen embankment leading into the long side of the structure, so that hay wagons and so on can be unloaded directly into the second floor. (Originally, the prototype of the basement barn may have been built into a hillside.) The difference between the Pennsylvania bank barn and the basement barn is that in the former the aisles run from side to side and in the latter they run lengthwise, meaning from gable to gable. Basement barns are commonly larger than English barns, from which they developed. Neither has the gambrel roof, with a shallower slope above a steep one, such as is commonly found in the American Midwest and called a "barn roof."

FIGURE 35

PHOTOGRAPH COURTESY OF THE HIBBARD FAMILY

In this photograph of the Hibbard Farmhouse, built in the 1880s, the cross-gable front at right is partly obscured by trees. A shed-roof addition is at left. At the time of the photograph, only the foundations of the original Taggart family farmhouse remained.

FIGURE 36



The courtyard farmstead plan as shown at the Jewett Farmstead.

Stereopticon

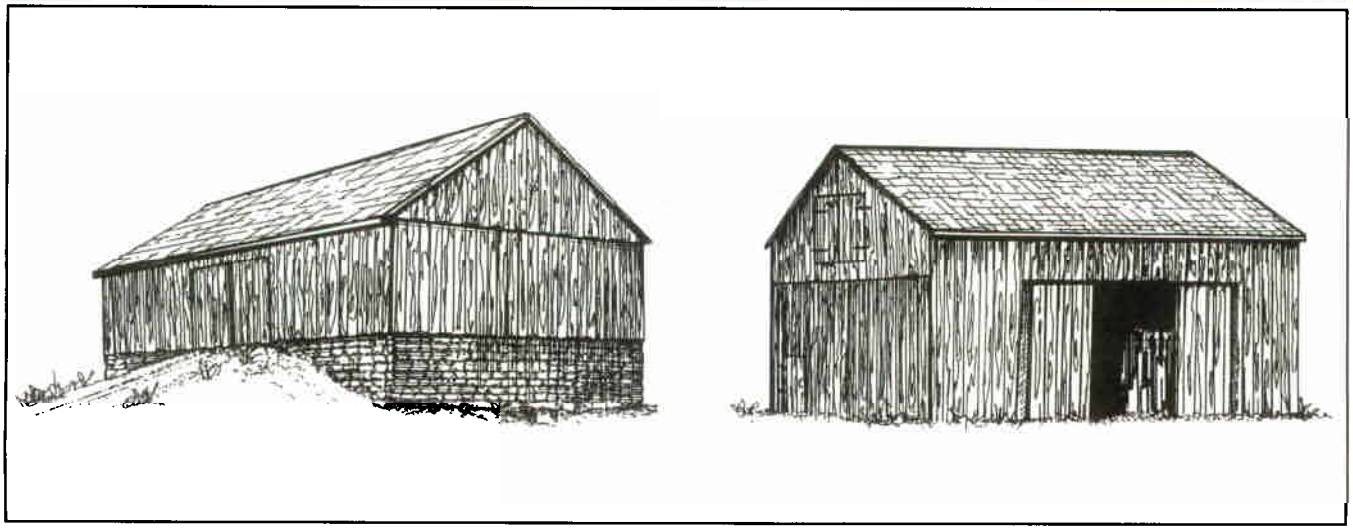
So here we have the North Country, a fairly sizable section of a rather large state in a somewhat new nation: mills, railroads, towns, villages, churches, schools, barns, farmhouses, and outbuildings, all threaded by streams and rivers. But this is more than a landscape, this is a community. Who are the people, what do they do, and how do they live?

Historic archeology offers a chance to look at the past as if through one of the nineteenth-century stereopticons that offered three-dimensional "views" of Niagara Falls or Windsor Castle. Through one eye-piece, we see the remains of past life as they were left in

IN 1845

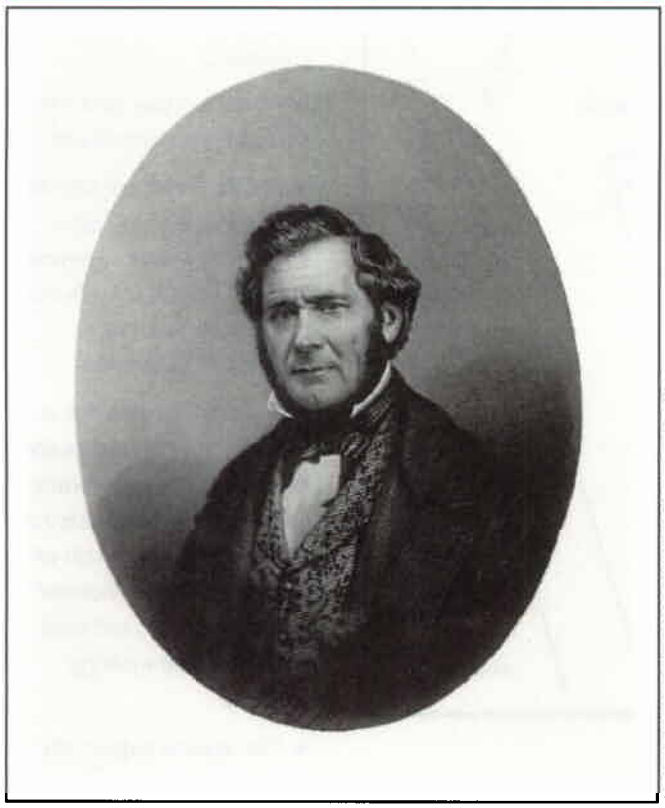
- *James K. Polk is President.*
- *Texas territory becomes part of the United States.*
- *Potato crops are blighted throughout Europe, most severely in Ireland. Famine kills 2.5 million from Dublin to Moscow, spurring emigration to America.*
- *The city of Lawrence is founded on Massachusetts' Merrimack River. Its textile mills, together with those of other "mill towns" such as the city of Lowell, founded a decade earlier, will help to make home weaving obsolete.*
- *The second-largest city in the world, after London, is Japan's capital city of Edo.*
- *Founders of a new city in the Oregon Territory flip a coin to see whether it will be named for Boston, Mass. or Portland, Maine. Portland wins.*

FIGURE 37



Drawings of a typical basement barn (left) and English barn (right).

FIGURE 38



COURTESY OF THE JEFFERSON COUNTY HISTORICAL SOCIETY

Loveland Paddock (1794-1872).
He would have been a contemporary of Vincent Leray.

the ground decades or centuries ago. Through the other eye-piece, we see the evidence of historic documents, from wills, journals, and mortgages to town histories. Together, the two images fuse into one, which is both clearer and more informative than either alone.

When LBA began archeological testing on the Fort Drum farmsteads, it was faced with an interesting challenge and an unusual opportunity. The challenge related to choosing among dozens of potential questions to ask about the archeological sites. The opportunity was offered by the discovery of a set of storekeeper's journals in the collection of the Jefferson County Historical Society.

What Is the Question?

Archeology has changed greatly since the day in 1922 when Howard Carter peered through a crack into the tomb of Egypt's boy king Tut-ankh-amen, was asked what he saw, and answered, "Wonderful things!" Every item found by Carter and his partner Lord Carnarvon was likely to be of enormous scientific interest, not to mention intrinsic value. For obvious reasons, such is not the case with nineteenth-century New York farmsteads. Faced with a large number of rather similar sites and limited budgets, excavators know they must justify their work by posing specific, narrowly focussed questions that can be answered by research at *these* sites in particular. There is nothing to be gained from picking up artifacts willy-nilly.

We have already seen the results of some of this work with respect to the prehistoric sites at Fort Drum, the limited excavations at the Leray Mansion, and the schoolhouse. For the post's historic farmsteads, four broad research questions were identified:

1) What was the pattern of settlement at Fort Drum, meaning how were the farms, mills, and villages situated with respect to each other and to features such as rivers, roads, railway lines and the landscape? The results of this line of research have already been discussed in connection with the Village Mapping Program and regional development.

2) How were the farmsteads arranged internally and with relation to roads? This, too, has already been discussed.

3) How did the Fort Drum farm families interact with local and regional or even national market networks? Who bought their farm products and where were they ultimately consumed? What prices were paid, what products were most profitable, what farm strategies were most successful, and did these strategies change over time?

4) How did these farm families behave as consumers? What did they buy and what did they make for themselves? How dependent were they on outside purchases? Do their buying patterns show they were doing well economically, or just getting by?

It is on these last two questions that we will focus as we consider the results of the archeological and documentary research at Fort Drum.

Paddock's of Watertown

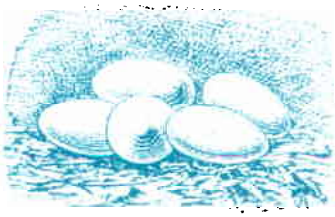
The historic storekeeper's journals mentioned above had been kept by the proprietors of Paddock's Store in Watertown. The Paddocks were a prominent Watertown family with interests in banking and commerce as well as the retail trade. Their store was a convenient distance from Fort Drum and examination of the journals relating to the 1840s quickly showed that seven Fort Drum families had indeed made the ten-to-fifteen-mile wagon ride to Paddock's Store at regular intervals.

LEDGERS, ACCOUNT BOOKS AND JOURNALS

Nineteenth-century businesses typically kept three types of written record books. Ledgers itemized cash transactions, usually without listing the name of the purchaser or the goods purchased. Account books listed individual account holders by name and recorded their debits and credits: so much for purchase of an axe head, so much paid on account, so much credited when the store bought farm eggs for resale. Journals, by contrast, were kept up on a daily basis and showed the amount, kind, and sequence of purchases at the store on a particular day.

Here, then, was a detailed body of data relating to dozens of farm families in the area and in particular to those seven families whose farmsteads were among the ones slated for archeological investigation. This was an unparalleled opportunity to round out archeological evidence with documentary evidence and to see how, and whether, the two sets of data were interrelated. LBA historian Amy Friedlander, as part of her overall assignment in historical research and social-science analysis, was given the task of studying and evaluating the buying patterns revealed by the journals. Her excellent report, entitled *Small Farms Well Managed*, makes interesting reading for anyone who wants more detailed information about her study. *(See Suggested Readings, page 92.)* At the same time, it should be noted that the journals were not the main basis for selecting the sites to be tested archeologically, as that decision had already been made by the point when the journals were uncovered.

The seven families were those headed by Moses Benway, Alvah Scofield, Paulina Taggart, Eugene Blanc, George Fredenburgh, and Victor and William Cooper, Jr., both sons of an early settler known as William "French" Cooper. As may be seen in Figure 30, page 40, most of these farms cluster in the Fort Drum Reservation's southwestern part, which is closest to Watertown.



In the writing of this book, which was derived from more than fifty volumes of reports totaling well over five thousand pages, the decision was made to focus on these seven especially interesting and well-documented farms. An additional factor in the decision was that Victor Cooper's farm had been selected, on the basis of its well-preserved and potentially informative archeological remains, for the more extensive excavation involved in a Phase III data recovery.

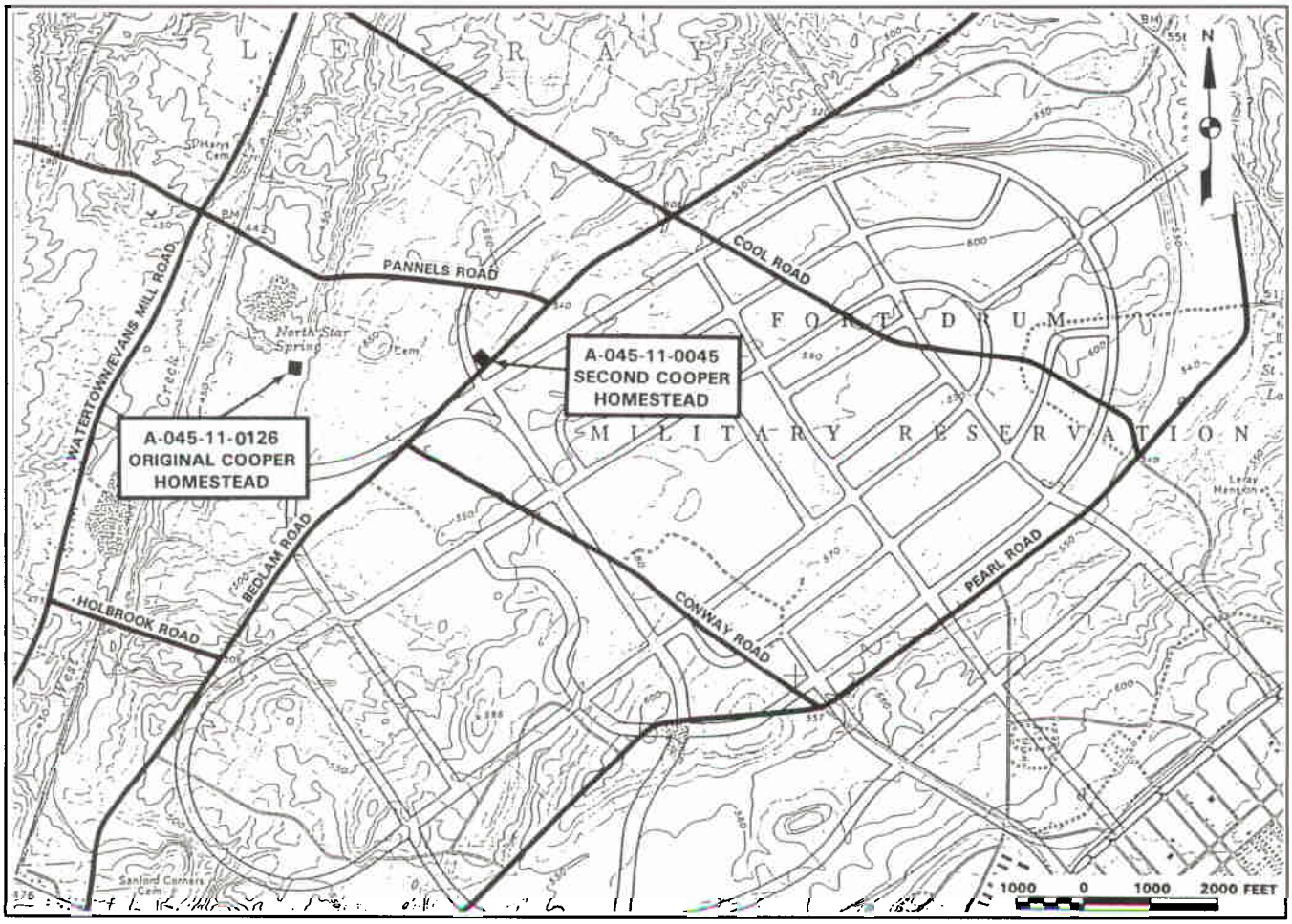
As it turned out, this plan was followed, but with one significant change. For logistical and strategic reasons, the Alvah Scofield and Eugene Blanc farms were not researched or tested archeologically to the same extent as the other five farms. At the same time, discovery of significant archeological deposits at the David Beaman Farm on the Watertown Road (later the Antwerp Tank Trail) caused that site also to be designated for Phase III excavation. Accordingly, the Scofield and Blanc farms were dropped from the list, and the David Beaman Farm added. What follows is a series of six farm portraits, put together from a combination of archeological evidence and historic documents such as deeds, wills, and mortgages. For convenience, the farms of Victor Cooper and William Cooper, Jr. have been treated together, since the two were not only brothers but close neighbors.

Portrait: The Cooper Farms

The man who would be known to his Jefferson County neighbors as William, or "French," Cooper was born Guillaume Coupart. He was a French citizen, but emigrated in order to avoid being drafted into the armies of Napoleon Bonaparte. Cooper, as he would later call himself, sailed first for the Maritime Provinces of Canada. However, by 1805, he had arrived in New York State, where he purchased, for 500 dollars, 150 acres of the land originally owned by James Leray. A series of additional land purchases brought the total size of his land holdings up to 500 acres.

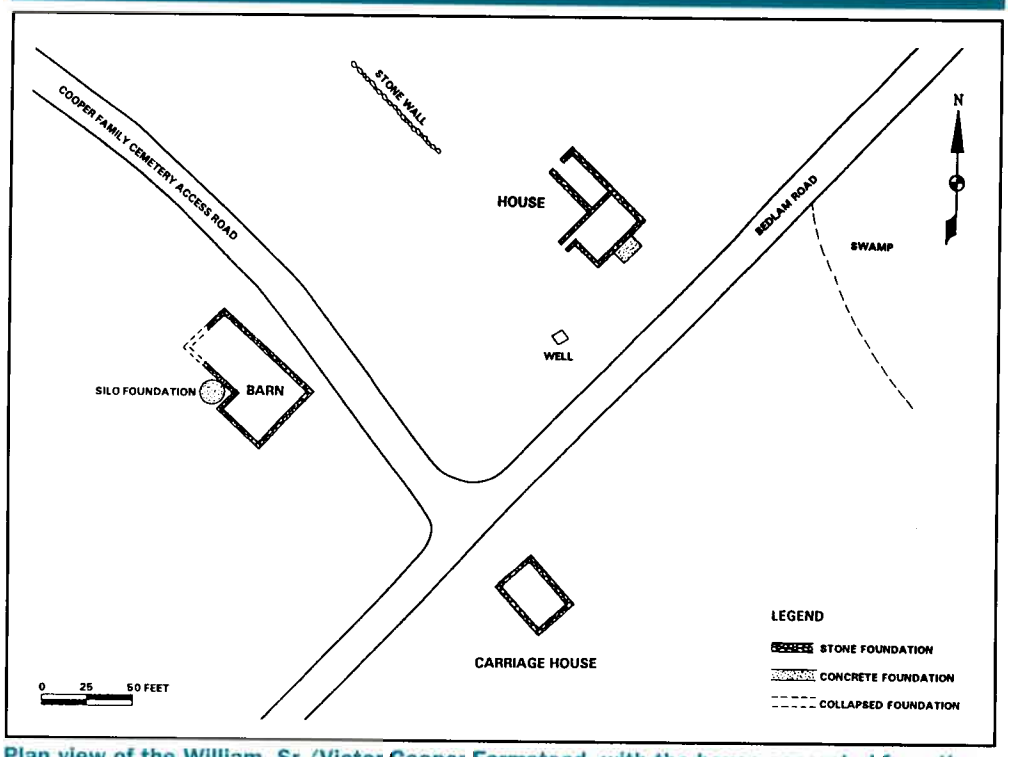
Cooper first built himself a homestead not far from North Star Spring. This fine, year-round water source flowed out from the foot of a slope about half a mile from Bedlam Road, giving rise to a stream that ran through a small gully. The archeologists later found evidence that a historic road or trail had once connected the site to the road. For some reason, possibly that of access, William Cooper, Sr. was not satisfied with his original home site. At an undetermined date, probably between 1815 and 1825, he picked up his operation and moved eastward to a spot beside Bedlam Road. There, with his wife Margaret, he raised a large family, which by 1810 included seven children under the age

FIGURE 39



The clustered elements of the William, Sr./Victor Cooper Farm, showing the family's move from the vicinity of the spring *(far left)* to the site beside Bedlam Road. The numbers in LBA's labels are the site numbers. Note that the cantonment area has been superimposed on the topographical map.

FIGURE 40



Plan view of the William, Sr./Victor Cooper Farmstead, with the house separated from the barn by the cemetery access road.

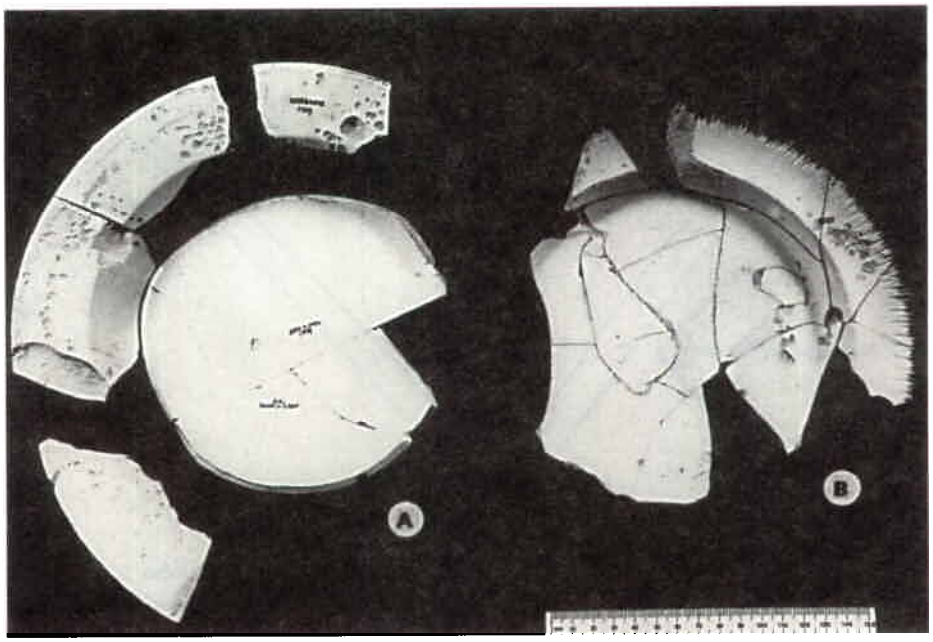
of sixteen. However, as was common at this period, not all of William's children lived to adulthood. Three of the couple's five surviving sons, William, Jr., Victor, and Rana Cooper eventually bought parcels of land from their father, beginning in the 1830s. Victor leased his property to the Conway family *(see discussion of the Benway/Conway Farmstead, below)*, while William, Jr. and Rana evidently resided on theirs (the William, Jr./Madison Cooper Farmstead and the Rana Cooper/Nathan Coffeen Farmstead).

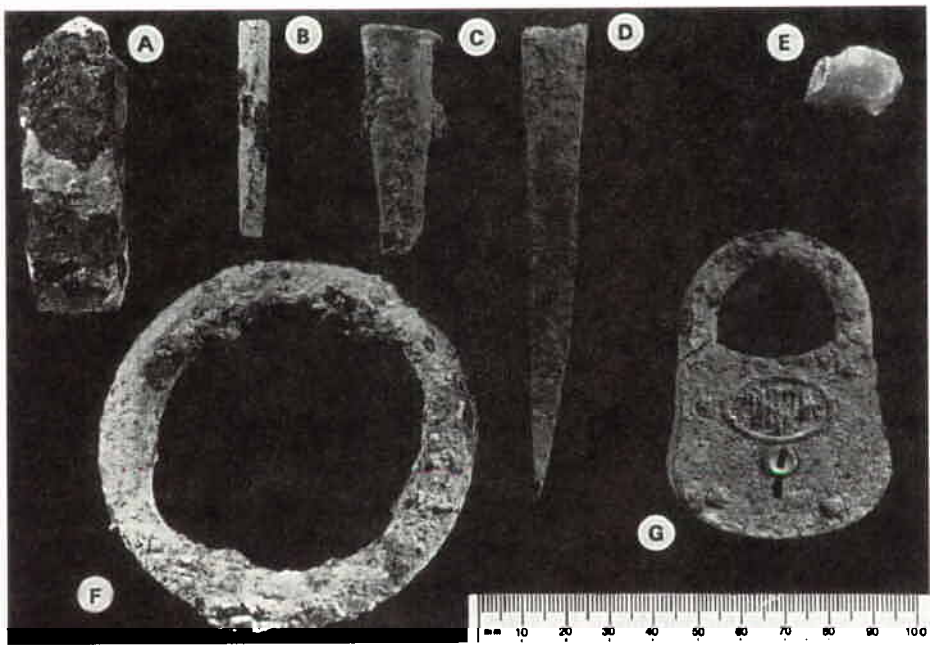
When William, Sr. died in 1851, he left additional property to sons William, Jr., Victor, Rana, and Alexander. The fifth son, Edward, was not mentioned in William's will, whether because he was already provided for, because he predeceased his father, or because of a family quarrel is not known. After the death of the father, Victor Cooper bought out the interests of his brothers Rana and Alexander and became the head of the household at the family farmstead, which is reported to have had a stone dwelling house as well as barns and outbuildings. By 1865, Victor and his family had abandoned or torn down the stone house and built a frame house in its place.

Victor and his wife Sarah had two children, Olive and Edward. The U.S. census of 1870 reported the household as composed of Victor and Sarah, daughter Olive (who had married, been widowed, and returned to her parents' home), Olive's twelve-year-old daughter Ella, and Sarah's aged father—four generations under the same roof. Son Edward had left home.

Victor died in 1885, leaving the "Old French Cooper Farm" to Edward, who then lived in Chicago. Olive received a life interest in a house Victor apparently owned in Sanfords Corners. Other documents show that she had taken a job in a local cheese factory. Edward Cooper later conveyed the farm to his wife Emma.

FIGURE 41 Artifacts from the Cooper Farmstead.





Above left: A plain ironstone soup plate dated about 1841 to 1860.
Above right: A whiteware plate with the "shell-edge" design in blue, dated about 1810 to 1845.

Below, top right: A wedge, a screwdriver, a maple-tree tap, a gouge and a gunflint.
Below, bottom: A large iron ring and a padlock.

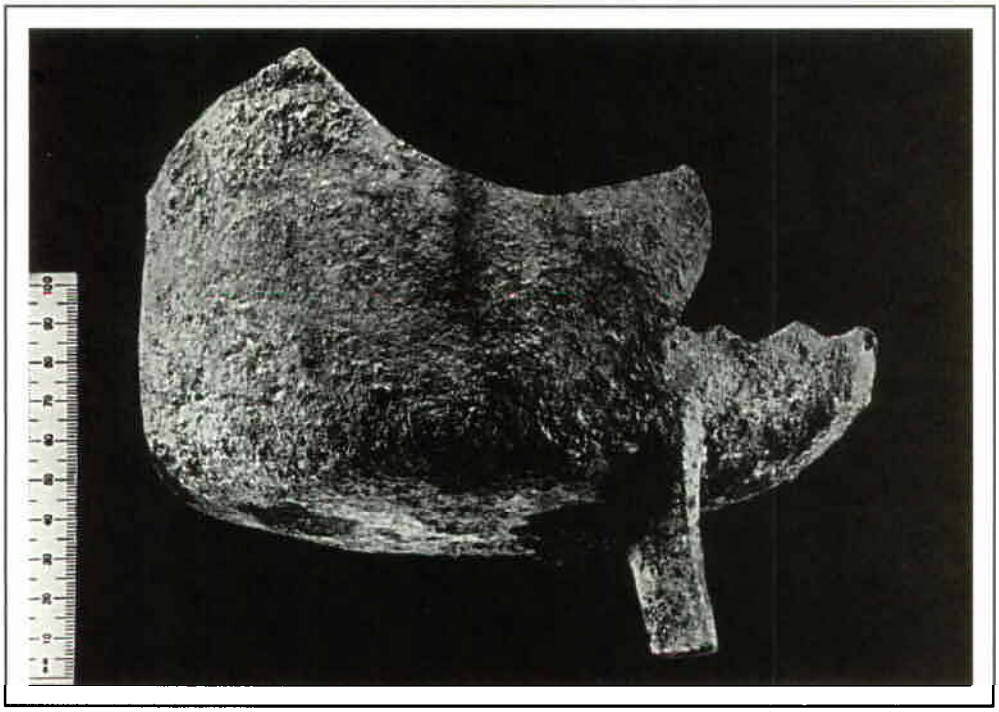
By the turn of the century, the farmstead was occupied (but not owned) by a Francis Cooper, whose relationship to the rest of the Cooper family is unspecified. Since the census of 1900 listed Francis's mother Polly as residing with him, it does not seem possible that Francis was a son of Edward and Emma. He may have been a nephew, cousin, or even no relation at all. The property finally passed out of the hands of the Francis Cooper family in 1927, and was conveyed to the U.S. Army in 1941.

The archeologists found that the William, Sr./Victor Cooper Farm was related to a complex of other Cooper family sites, specifically, the ruins of the original homestead at North Star Spring, the family cemetery, and the site of a summer cottage. The farmstead itself consisted of remains of the house, barn, well, and carriage house, located across Bedlam Road.

Since little trace of the homestead could be found, the cottage site was not rated as very informative, and there was no intention to dig up the graveyard (such sites being protected by law), the main focus of the archeologists was the farmhouse and its outbuildings. The object was not to excavate every square foot of soil but to retrieve a broad sample of items from different levels and locations. The 32,334 artifacts recovered came from the carriage house foundation, the barn foundation, the central yard, and the east yard of the farmstead, in deposits dated between the 1830s and 1941.

One of the most evocative objects found was a large fragment of a three-legged cast-iron kettle of a kind popular during the eighteenth century. Since kettles must be among the sturdiest of household items, it is not surprising to find this object from an era that

FIGURE 42



The "good old three-legged kettle." Made of cast iron, it was already old-fashioned by the middle of the nineteenth century.

was already history in the middle of the nineteenth century. We may imagine Sarah Cooper saying, "It's a good old kettle, why would I want a new one?" The presence of such objects illustrates what archeologists call "depositional lag," meaning the gap in time between an object's manufacture and its ultimate disposal.

The kettle and other finds were classified by the archeologists in two ways—as to material (ceramics, glassware, metal, bone, etc.), and as to function. Among the functional categories were kitchen-related, smoking-related, architectural, clothing, personal, weapons-related, tools and implements, illumination, and miscellaneous small finds. Since the archeological significance of the farmsteads was more collective than individual, the general conclusions drawn from the artifacts will be discussed in the section entitled "Free and Independent."

As mentioned above, William Cooper, Jr. had bought part of his father's farm in 1838, but may have resided there earlier, as he had married and already had a family by the time of the purchase. *(See Figure 30, page 40, for farm location.)* It appears that he had built a stone house on the farmstead, probably in the early 1830s. By 1850, he and his wife Elvira had seven children aged between eighteen and two: Samantha, William (III), Sidney, Madison, Margaret, Charton, and John Henry. The two oldest boys ultimately moved away, leaving Madison to run the farm with his father. (The 1850s was the period when the advice, "Go west, young man," was widely heeded.)

In 1855, William, Jr. was raising Irish potatoes, barley, Indian corn, spring wheat, and oats, while in the same year his brother Victor planted a somewhat more diverse crop, including in addition winter wheat and rye. Both brothers had oats as their principal crop by a fairly wide margin. However, in that same year, Victor produced 5,000 pounds of cheese and 1,000 pounds of butter while owning thirteen dairy cows, whereas William,

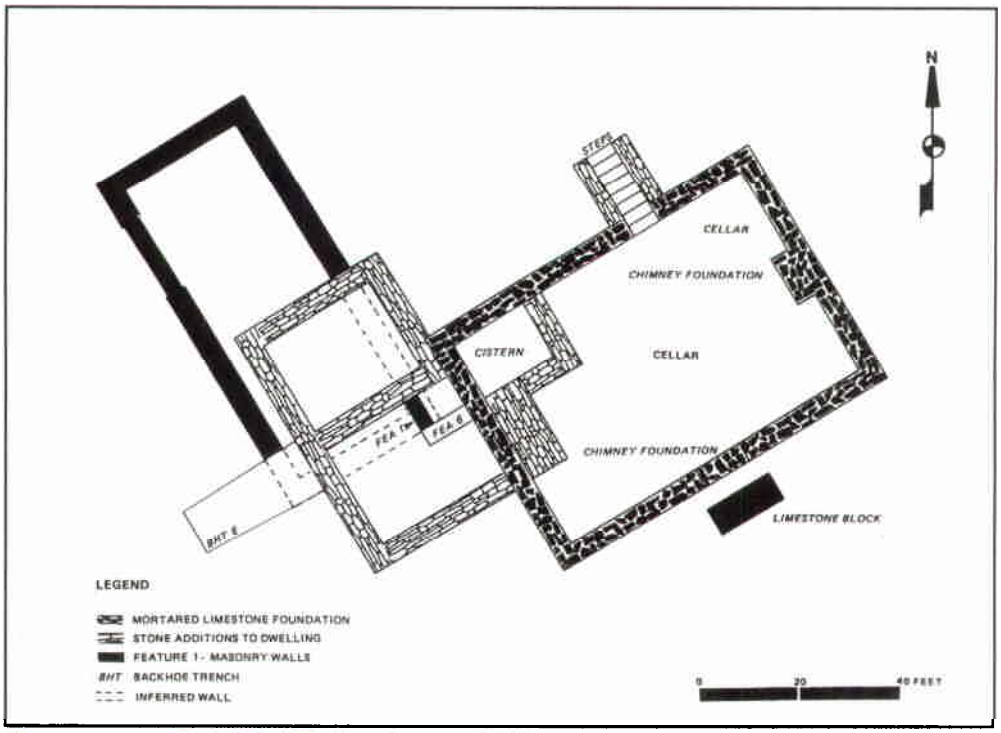
FIGURE 43

Item	Beamans	Benways	V. Coopers	W. Coopers	Nellises	Taggarts
Acreage						
Improved*	200	74	97	120	60	281
Unimproved	45	25	31	38	13	85
Plowed	20	17	37	28	15	46
Pasture	130	32	32	41	25	146
Meadow	50	25	28	50	20	91
Total	445	173	225	277	133	649
Hay (tons)	60	—	20	70	10	—
Value of farm ($)	6,360	2,500	4,550	5,000	2,000	11, 250
Value of livestock	735	815	575	941	210	—
Value of tools	259	143	—	150	72	—
Crops						
Wheat (bu.)	—	—	—	—	—	70
Winter wheat (bu.)	—	80	60	—	20	—
Spring wheat (bu.)	65	—	16	110	—	—
Rye (bu.)	—	—	80	—	—	—
Oats (bu.)	100	45	180	125	—	180
Barley (bu.)	30	75	75	75	—	80
Indian corn (bu.)	20	100	35	80	180	(peas) 20
Irish potatoes (bu.)	100	13	60	50	200	50
Livestock						
Cows, heifers, yearlings, and calves	29	22	80	31	not listed	1
Dairy cattle	19	15	13	16	—	30
"Other" cattle	—	—	2	2	—	6
Horses	6	4	4	2	—	6
Swine	4	8	11	4	—	9
Sheep	—	—	—	—	—	2
Cloth (yards)	—	—	—	70	—	—
Eggs ($)	—	12	—	—	—	—
Butter (pounds)	2,400	2,000	1,000	675	—	3,000
Cheese (pounds)	300	—	5,000	250	—	—
Maple sugar (pounds)	300	150	100	—	—	—
Molasses (gallons)	—	—	—	10	—	—
Maple syrup (gallons)	—	4	5	—	—	—

* The mean or average size of the Fort Drum farms was about 95 improved acres from 1850 to 1865, rising to just over 100 by 1875. The Taggart farm as a whole was the largest farm in the 1855 sample.

Farm products and value of the six farmsteads in 1855.

FIGURE 44 Plan of the William, Sr./Victor Cooper Farmstead.



The masonry walls labeled Feature 1 are probably those of William's earlier, stone house.

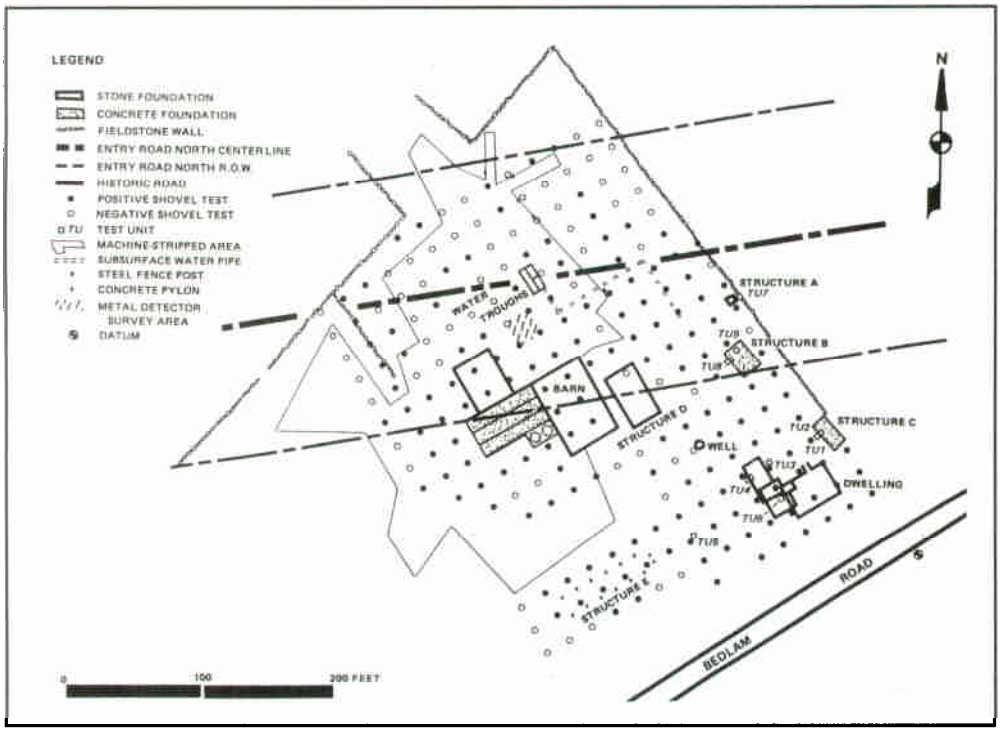
Jr. produced 250 pounds of cheese and 675 pounds of butter while owning sixteen dairy cows. The inference clearly is that Victor was buying extensive amounts of milk from others. *(See chart on previous page.)*

By 1860, Madison and his father William, Jr. apparently occupied separate houses. It is not clear from the records whether the son and his family lived in the stone house and the father in another structure close by or whether it was the father who continued to live in the stone house. In the next decade, however, the family reconsolidated. The 1870 census shows both parents as members of Madison's household, in addition to his wife Diane, three children, a farm hand, and two "cheese makers." (The first cheese factory in Jefferson County had been opened in Sanfords Corners in 1853.)

The presence of professional dairy workers at the Cooper farm relates to an expansion of the Coopers' cheese-making enterprise, which seems to have shifted its focus from Victor's farmstead to William, Jr.'s in the years between 1855 and 1870. By that time, Madison owned at least four cheese factories, which were in operation for five months of the year (the milking season) and produced 77,856 pounds of cheese from 96,000 gallons of milk. Also produced was 1,348 pounds of butter, for a total cash value of $13,200. Since expenses for that year came to $12,198, there was about a thousand dollars in profit from the operation. This is precisely the value placed on the farmstead's stone house five years before, so it would seem that the family was doing very nicely from the cheese operation if it was earning the price of a house every year.

William, Jr. died in 1871, leaving his farm to his son Madison. Nine years later, for unspecified reasons, Madison moved the family into the village of Evans Mills, where he already operated another cheese factory. In 1883, he sold his farm to his brother Sidney

FIGURE 45 Plan of the William, Jr./Madison Cooper Farmstead.



The "polka-dot" overlay shows a typical array of test pits. Structure E (bottom center) may have been the cheese factory.

Cooper. After that, the property passed through the hands of a series of Cooper relatives, who served as absentee landlords. The last of these was Madison's son, Madison, Jr., who conveyed the farm to the U.S. Army in 1941.

The archeological investigation of the William, Jr./Madison Cooper Farmstead identified the house, the barn, and five outbuildings, all represented by foundations and arranged in a hollow square plan. The house foundation revealed a complex series of construction and addition episodes related to two distinct house foundations, an earlier one of rough limestone and a later one of partially dressed and mortared limestone blocks laid in courses. Although other interpretations were possible, the one preferred by the archeologists was that the first foundation was that of the stone house occupied by William Cooper, Jr., and the second belonged to a frame house built around 1860 when both William and Madison had households at the farmstead.

Considering the documentary information regarding the presence of a cheese factory on the property, the LBA archeologists were anxious to examine the remains of this rather unusual structure. Efforts to identify it were inconclusive, however. The best candidate would seem to have been Structure E, as shown in Figure 44, largely because the remains of what may well have been a boiler foundation were found within the building's footprint, and cheese manufacture requires the heating of large quantities of milk. On the other hand, no artifacts specifically relating to cheese making (such as press boards, hoops, rotators, dippers, scoops, and "cheese harps") were found in association with the building. Furthermore, the fact that it rested on a series of concrete piers did not seem consistent with the need to support considerable weight, and the absence of a cellar also raised questions as to the location of the factory's cool room, or salting cellar, which more or less

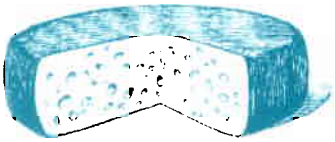
required to be underground in order to maintain the desired temperature of less than 60 degrees Fahrenheit.

Portrait: The Fredenburgh/Hart Farm

The farmstead first settled by George Fredenburgh (also spelled Fredenburg) was not one on which a single owner/occupier and his descendants lived for generations. On the contrary, the farm changed hands about every five years during the period that is of greatest interest to us (1845–1865). Furthermore, it was operated by tenant farmers for part of that period and, at seventy-three acres, it was somewhat smaller than most of the farms described here. All of these factors help to broaden our view of farm life in the North Country.

The Fredenburgh/Hart farmstead was originally part of a vast tract of land bought by James Child in 1808. Located on an unnamed road that formed a triangle with Pearl Street and Conway Road, just east of Sanfords Corners, it passed through the hands of

THE CHEESE STANDS ALONE



Cheese has been known since at least 4300 B.P., a date based on analysis of residue found in an ancient Egyptian pot. Although cheese is not widely popular in Asia, it has been made not only from the familiar cow's milk but from the milk of sheep, goats, mares, water buffaloes, and yaks.

In terms of the history of food, making cheese is a way of preserving the nutritional value of milk long after it would otherwise have spoiled. Milk contains a protein called casein that can be curdled by the addition of a bacterial culture that produces lactic acid and thus "sours" the milk without spoiling it. This stage takes about an hour, and the milk must be kept warm (between 85 and 105 degrees Fahrenheit). Next comes the addition of rennet, a substance found in the young calf's stomach, which performs a natural curdling function. (Use of rennet was probably discovered in ancient times when milk was stored in a bag made from a calf's fourth, or true, stomach.)

After curdling, the technique is to compress and dry the curds in such a way that they cohere into a solid mass with the milk's water and fat globules trapped in the protein network. The object of this process is to expel the watery whey. Salt is added for flavoring and as an additional preservative. Finally, when the cheese is aged, molds and benign bacteria may also contribute to the flavor. The end result is anything from one of the pungent blue cheeses or hard Cheddar and Parmesan types to stinky Limburger, and creamy Brie or Camembert.

From the point of view of the farmer, cheese making is a much more finicky process than, say, ham curing. If the temperatures are not just right, if bacterial cultures are contaminated, if tools and containers are not kept scrupulously clean, the result may not be cheese but a spoiled mass of inedible goo. The fact that cheese making requires skill and constant attention without exceptional physical effort made it an ideal task for farm wives and children, but it was not a job that could be done in a careless or slipshod manner. Sloppy work meant contaminated cultures.

The cheeses made at Fort Drum were generally of the "fancy" variety, including Limburger, Brie, Swiss, Munster, Stilton, d' Isigny, Neufchatel, Square Cream, Wiener, and Camembert types. It is worth noting here that the "Philadelphia Cream Cheese" still commonly found in stores today was originated in the village of Philadelphia near Fort Drum, not in the Pennsylvania city of the same name.

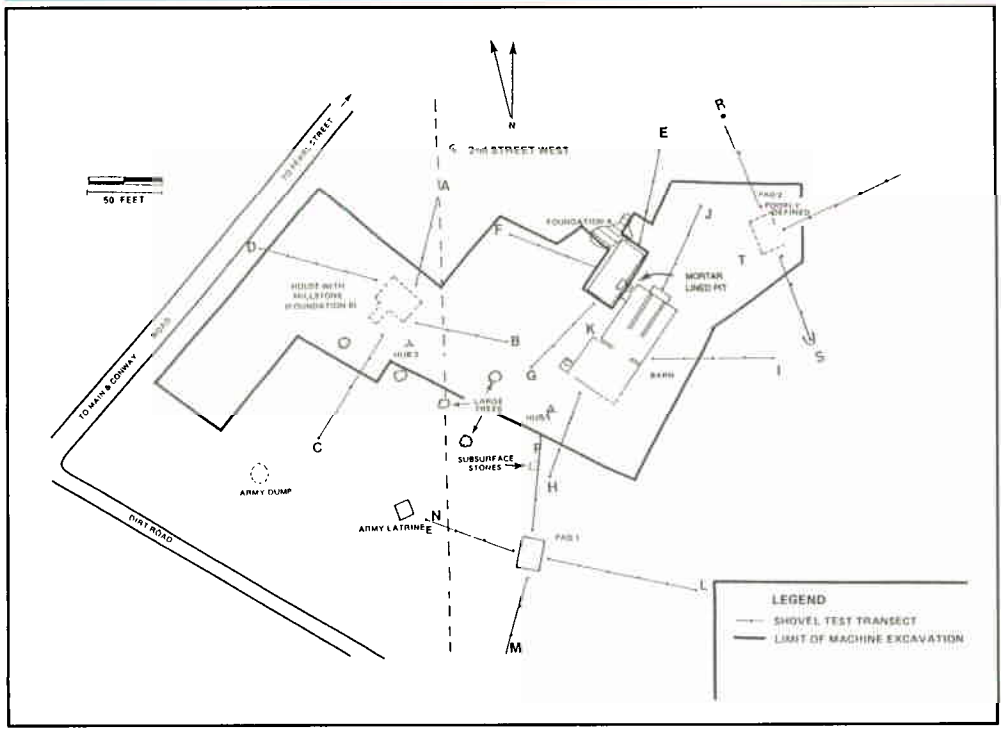
several middle men and real-estate investors before being sold to George Fredenburgh in 1850 (with a smaller piece of property being added in 1854). There is some evidence that the Fredenburghs were actually living on the farm before they formally acquired it.

In 1850, George Fredenburgh (age 46) headed a household that included his wife Armedia (age 34) and six children: George C. (age 11), Sarah Jane (also 11), Ebenezar (age 10), John E. (age 6), Charles A. (age 5), and William Henry (age 3). Also in residence were Amanda Fredenburgh (24), Caroline Fredenburgh (18) and Catherine Mosely (87). The first two could have been adult daughters of George's by a previous marriage, his nieces, or even his sisters. Catherine may have been Armedia's mother or an aunt of either hers or George's. The relationships are not specified in census data from this period.

Although they stayed long enough to be recorded in the Paddock's Store journals, the Fredenburghs had moved away from the farmstead by 1855, when it was occupied by a young couple named Nellis. (He was 25, she was 24.) Unfortunately, the Nellises defaulted on their purchase, and George Fredenburgh took it back but probably leased it out, since he is recorded as continuing to live in the village of Champion. In 1860, Fredenburgh sold it to William Willard, who lived there only three years and died in 1863. The farm was then sold to George B. Hart, who owned the property on the other side of the road. George Hart fused the Fredenburgh farm with his own and passed it to his son Charles Hart upon his death in 1884. The two farms continued to be worked as a unit until the property passed to the U. S. Army in 1942.

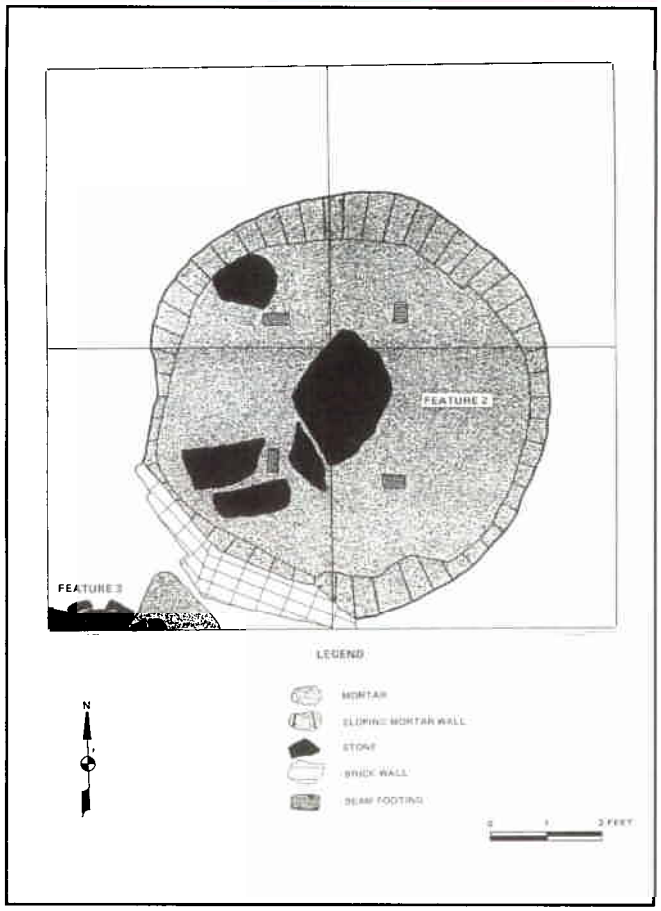
Information from state and federal agricultural schedules for the period of the farm's first three occupants, Fredenburgh, Nellis, and Willard, shows that in 1850 the Fredenburghs were working thirty improved acres and raising wheat, oats, Indian corn,

FIGURE 46 Plan of the Fredenburgh/Hart Farmstead.



Capital letters A through T refer to the rows, or transects, of shovel test pits that were dug in order to assess the site's suitability for further excavation.

FIGURE 47 Typical plan of a pit silo.



and Irish potatoes, in ascending order of importance. They possessed ten cattle (including one ox), one horse, and three pigs. Oddly enough, they were recorded as producing twenty pounds of wool, although they owned no sheep, and this wool was their only "home manufacture."

By 1855, Calvin Nellis had doubled the improved acreage from thirty to sixty acres, but had no livestock listed (almost certainly an oversight). *(See chart on page 57.)* He was growing spring wheat, Indian corn, and Irish potatoes, but had apparently gotten out of oats. Like the Fredenburghs, the Nellises sold neither butter nor milk.

In 1860, on about the same acreage, the Willards were raising barley, Irish potatoes and oats, the last-named being their biggest crop. They had 28 cattle, two horses, and two pigs. In addition, they were producing a hundred pounds of maple sugar each year.

For whatever reason, this farm does not seem to have been as prosperous as some others studied. Less than two miles away to the west, the William Cooper, Jr. farm comprised 120 improved acres in 1855, twice the size of the former Fredenburgh property, now in the hands of the Nellises. But William's farm was valued at $5,000, more than twice the $2,000 value placed on the smaller property. Furthermore, Cooper's livestock was valued at $941, in contrast to the Nellises' $210, and he was selling not only butter (675 pounds), but homespun cloth, cheese, and molasses. His agricultural products were also more diverse, including in that year not only spring wheat, corn, and potatoes, like the Nellises, but oats and barley.

Another interpretation of these structures is that they were root cellars, where vegetables and other perishables were kept cool. *(See discussion, next page.)*

When the LBA archeologists arrived to perform combined Stage I and Stage II testing at the Fredenburgh/Hart Farmstead, they found a landscape that had already been significantly affected by military operations. The house foundation had been substantially filled in with military trash such as ration containers, communications wire, and pieces of aluminum conduit. There was also a large millstone, presumably brought from elsewhere, as there is no record of a mill on the site and no water course capable of operating one. Behind the house, in a version of the courtyard plan, were a large double barn foundation (82 by 44 feet) with a stone-lined cellar, a stone foundation platform, and a concrete foundation pad.

This piece of the archeological work was done rather early in the project, and the decision was made to use machine-excavation in order to evaluate the usefulness of this technique. Having dug a small number of test pits to determine the general underground conditions and major soil layers, the archeologists brought in a bulldozer and undertook an operation called "blading," which means scraping the soil from a fairly large area in one or more thin layers, much as one might strip several layers of paint or varnish from a piece of old furniture. The advantage, of course, is that a machine can strip a large area in a given amount of time, thus revealing concentrations of buried materials. The disadvan-

tage is that machine stripping usually destroys very delicate or subtle archeological deposits. However, in this case, no such remains were expected, and in point of fact, the stripping revealed very little in the way of potential interest—no features, such as privies, wells, or deep refuse pits, and not even a great deal of "sheet refuse," the thin scatter of surface or near-surface artifacts that often accumulates across a wide area of any heavily used piece of ground, historic or prehistoric.

Possibly, the Fredenburghs and their successors were tidier than average and chose to locate their outhouses well outside the farmyard. The most interesting discovery was a mortar-lined pit located between the barn corner and the adjacent building foundation. Similar pits kept cropping up throughout the Fort Drum archeology. Archeologists at first identified them as cisterns (storage for rainwater) but later concluded they might be underground silos for feed storage. There was also an exterior milk cooler, which had been constructed against the west wall of the barn. It is certainly to be expected that milk coolers should have been regular features of the Fort Drum farmsteads. Some used water in ingenious cooling systems.

With completion of this archeological operation, the archeologists believed they had recovered just about all the information the farmstead could offer and that no further work was called for.

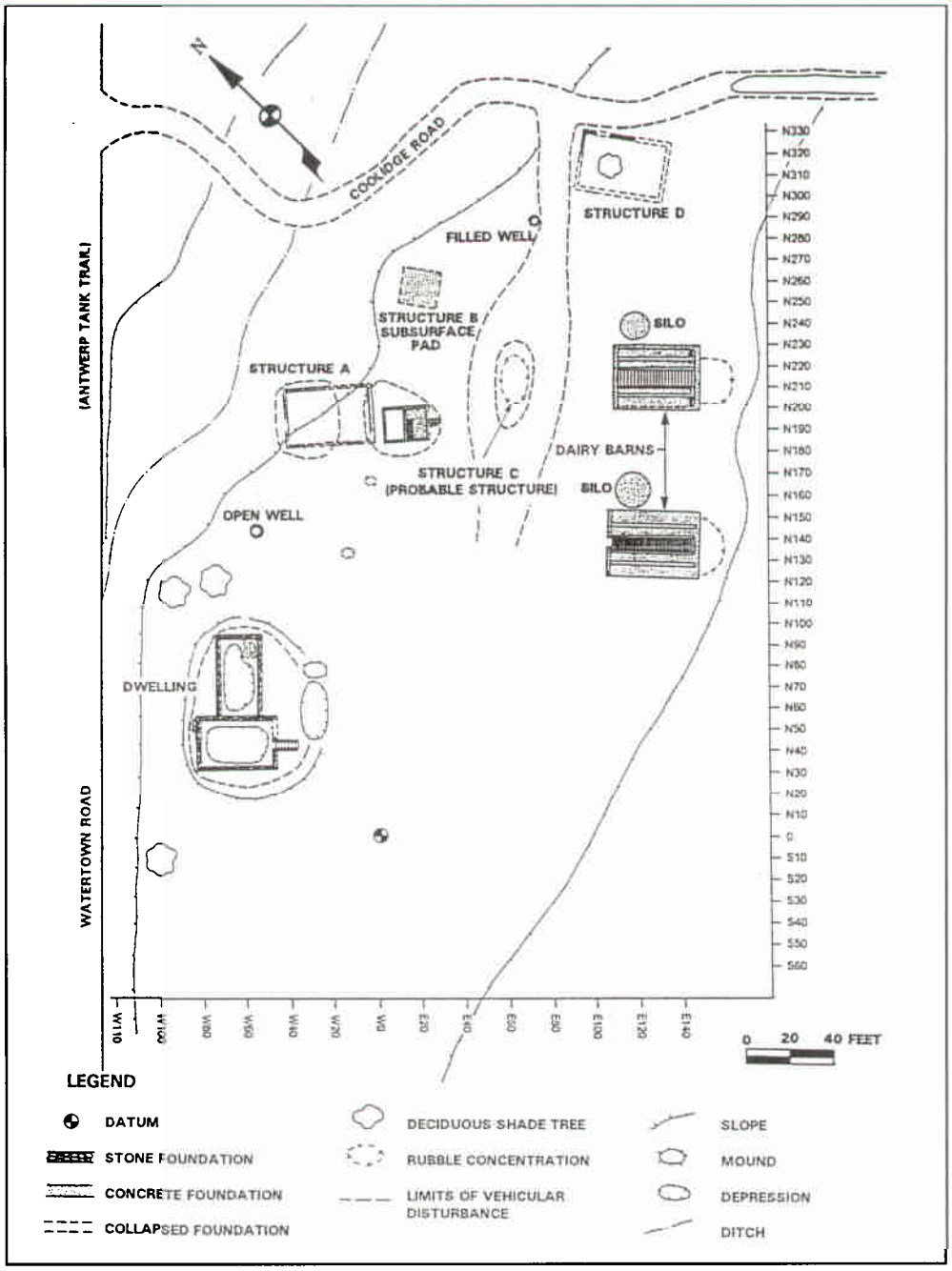
Portrait: The David Beaman Farm

David Beaman, born in 1796, came to the North Country in 1818 from Westminster, Massachusetts. One of eleven children, he had been apprenticed to a hatter, but apparently preferred working the soil to the hatter's trade. He hired himself out as a journeyman in order to earn money and in 1820 bought a little over forty-two acres on the Watertown Road (later called the Antwerp Tank Trail) from David Parish, one of the area's large landowners. Soon, he had established a farmstead in the township of Antwerp and was able to send for his widowed mother, Annis Beaman, and at intervals for his younger siblings Annis, Ira, Ezra B., Sophronia, Hiram, Abigail, and Sarah.

David evidently met with success as a farmer: within three years he had increased his original farm to over 108 acres. By the time of his death, he owned nearly 300 acres. His brother Ira (1800–1860) eventually established his own farm just across the road from David's, while Ezra B. Beaman settled just down the road (at the Beaman/Gleeson Farmstead). He sold out to Ira and moved to the neighboring village of Philadelphia in 1856.

David married twice. His first wife was Lucy Porter (born 1811), with whom he had three children, Harriet, Jane, and George. After Lucy's death in 1839, David married Sally Ann Mosher. Sally also bore three children, a son named Alonzo and twin girls named Alice and Annis. David's sons both moved away, although Alonzo may have lingered longer than George, as he managed the home farm for his father for a time during the 1870s. Eventually, he too left, settling in Kansas. Also members of the Beaman household at various times were Alice Becker, David's orphaned granddaughter, (daughter of Harriet Beaman Becker), a young woman named Catherine Mosher, who may have been a relative of Sally Ann's, a possible nephew of Sally Ann's who worked as a farm laborer, and a succession of unrelated (perhaps itinerant) farm hands and servant girls. A late addition to the household was Ella O'Weaver, a local schoolteacher, who presumably boarded with the family while she taught at a neighboring schoolhouse.

FIGURE 48 Plan of surface remains at the David Beaman Farmstead.



Note the archeological datum point slightly to left of center, near the bottom of the plan, and the scales at the right and bottom showing distances north-south and east-west of the datum. Part of Structure A was the milk cooler.

When David died at the advanced age of eighty-seven, he left the farm to his twin daughters Alice and Annis, who had never married. The twins appear to have gone to live with their mother in Antwerp. In addition to their farm income, the three women were supported by a shop owned by Alice, which sold dress goods, notions, and ladies' furnishings.

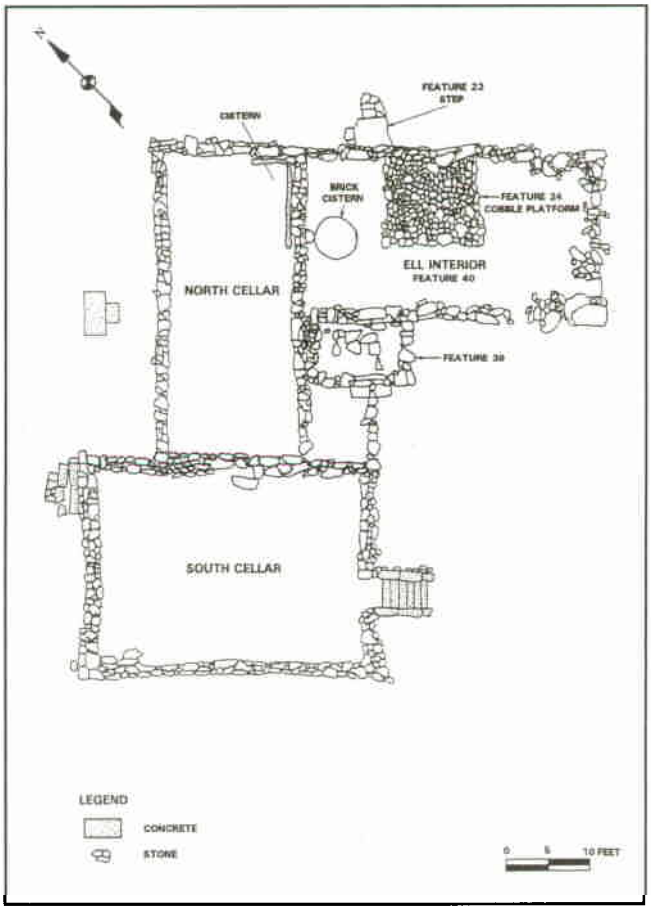
In 1919, Alice and Annis sold the farm to a pair of brothers named Perrigo. Thus the Beaman Farm had been in the same family for nearly a century, passing through only two generations. This was one of the factors that made it suitable for Phase III excavation.

The Beaman Farmstead was arranged in an open courtyard pattern. It was a complex

site, containing over forty features in addition to the remains of a dwelling house, two dairy barns, a well, and four other structures.

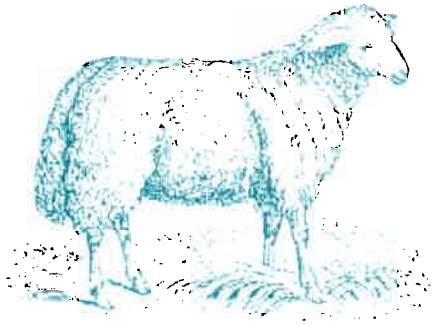
The archeologists could tell that the house had been constructed in two different parts. The older section of cellar was on the north, a newer one at right angles to it on the south. A surprise was the uncovering of a third portion of the house, an ell that had once adjoined the north cellar but had been razed and buried sometime before the early 1920s. From the massive quantities of brick that nearly filled the cellars, it was clear that the farmhouse had been of frame and brick construction. Internal evidence also suggested that the buried ell might have been built first, even before the north cellar, but this could not be determined with certainty. In any case, the ell evidently served as the farmhouse kitchen at some point, judging from the presence of a cobble platform (Feature 24), such as was sometimes used to support the weight of a large, cast-iron kitchen stove.

FIGURE 49 Plan view of the Beaman House foundation.



The cistern would have held drinking water. Feature 39 was a porch.

The two concrete-floored dairy barns had evidently assumed their final form about 1923, since one had that date scrawled into the concrete. This would have been a typical early twentieth-century modernization, undertaken for sanitary and housekeeping reasons. It does not mean, however, that earlier, more traditional barns had not occupied one or both places on the farm. Indeed, since the Beamans had between forty-eight and ninety-two cattle (plus up to six horses) in the years 1850, 1855, and 1860, the early presence of two barns would seem quite appropriate. Each barn was flanked by the foundation of a silo, which would (in the latter part of the century) have been used to store winter fodder for the dairy cows and other animals. Because the barns were rebuilt after the advent of silage in the late nineteenth century *(see inset, next page)*, it is probable that they had only one story, since large haylofts were no longer necessary.



Somewhere on the property, there must also have been a sheep barn and a piggery, since both animals were well represented in David Beaman's agricultural summaries. The Beamans, in fact, were more typical of Fort Drum farm families than the Nellises, for example, in that they raised sheep, ate lamb or mutton, and produced wool throughout the first fifteen to twenty years of the farm's operation. Only after 1865 did sheep disappear from the farm records in general, indicating perhaps the decline in demand for woolen Army uniforms after the Civil War.

The excavations at the Beaman Farmstead yielded a rich harvest of artifacts in a variety of categories, including many that could be "cross-mended" (glued together) to give an idea of their original form. Even more gratifying was the fact that several of the deposits could be much more accurately dated than many of those from other farm excavations because the materials had not been so thoroughly trampled and mixed as they were elsewhere.

Even though the Beamans did not shop at Paddock's store, the remains from their farmstead fit well with the patterns followed by those who did, as will be seen in the next section, "Free and Independent."

Portrait: The Taggart/Rogers/Hibbard Farm

The seventy-six-acre Taggart Farm property, located between the farmsteads of William Cooper, Sr. and William Cooper, Jr., was bought by Henry Taggart in 1817. Within a few years, he had expanded the property to a total of 450 acres, eventually divided into three farms. When Henry died untimely in 1839, his estate included three colts, four horses, one yoke of oxen, thirty-two cows, ten yearlings, twenty calves, thirty-one pigs, thirty-five sheep and an assortment of poultry. Also mentioned in the inventory were wheat and other "spring crops," dairying utensils, wagons, carriages, farm implements, and harness. Because Henry had died without a will, his widow Paulina was named administrator of his estate instead of inheriting directly. She now faced the daunting task of operating the farm and raising between six and eight children. (The census figures of those years do not differentiate between minor children and farm hands when listing the eight individuals under twenty in her household.)

SILAGE AND THE AMERICAN LANDSCAPE

In the 1850s, cows in the Black River section of New York would have given milk over a five- or six-month period, beginning in March. The advent of silage, also called ensilage, meant that there was fodder for animals in the fall and winter, which served to increase both the length of the milking season and the general health of the farm's livestock. Silage is green fodder, often composed principally of corn stalks, which is coarsely chopped and stored under cover. Natural fermentation processes then act upon it to kill bacteria and enhance its vitamin content.

The tall, round silos that were built to contain silage are so much a part of our concept of the American farm that it is difficult to imagine the landscape without them. Yet before 1880, silos were largely unknown.

Even with the help of her sons, life may not have been easy for Paulina as a widow with an estate to settle. She apparently ran up, or inherited, debts with the Paddock family, whether at the store or through their banking operation, and Loveland Paddock entered a petition against her containing financial claims that were not resolved until 1851.

Evidently three of Paulina's sons continued to reside on the farm and help her work the land as adults. When Byron Taggart married (the others may have married later), the farm was split into its original constituents and subdivided to provide separate households for Byron Taggart's family, Paulina, and brothers William and Joseph. There are interesting indications, however, that the family continued to think of itself as a unit. For example, Paulina is listed as "head of the household" in census data as late as 1855. Earlier, in 1850, the lists of the three farms' output attribute most of the produce to the farms of the sons, and most of the dairy products to Paulina. The suggestion is that the boys worked the land and milked the cows while their mother made the butter and cheese. This must have been seen as a worthwhile operation because, if she had wanted to, Paulina could very probably have sold the family's milk to her immediate neighbor Victor Cooper for use in his cheese factory.

By 1855, the Taggarts were reporting their property as a single holding, valued at $11,250, nearly twice as much as the prosperous Beaman Farm. The Taggart property consisted of 281 acres of improved land and 649 total acres (the largest of the six farms studied here). They were producing Irish potatoes, wheat, barley, and oats, plus twenty bushels of peas. They had thirty dairy cows and produced 3,000 pounds of butter. Later, the farms were again separated into three properties, one going to each brother.

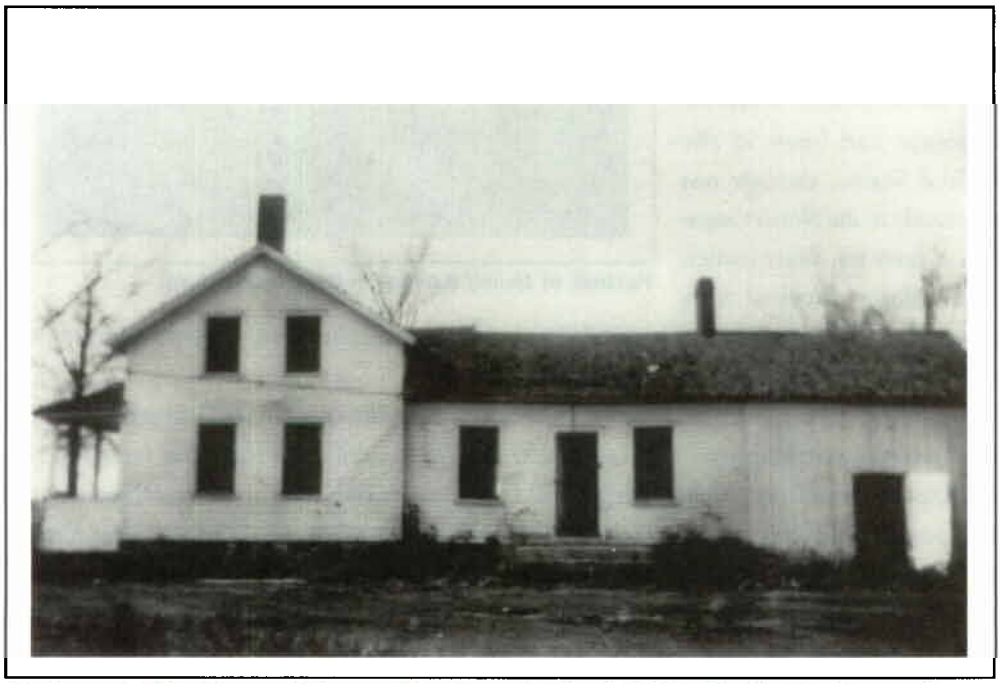
The Stage II archeological testing of the farm did not turn up any deposits or remains of outbuildings that could be attributed to the Taggarts alone. This was something of a disappointment, since historic archeologists always hope to be able to say, "Ah yes, the Smiths dined off blue shell-edged table china while the Joneses dined off green." Instead, they found plenty of evidence that related generally to mid nineteenth-century farm life, but the deposits were too much mixed and trampled to allow them to be attributed to any one household.

This was a recurring situation at the Fort Drum farmsteads and came to be related to changes in farm landscaping practice. Simply put, it appeared that nineteenth-century farmers routinely shoveled the dirt around in their farmyards, leveling, smoothing, and cutting down to suit the needs of the moment. Together with the natural trampling by farm animals, people, and farm equipment, the result was that artifacts became both mixed and fragmented to a considerable degree, although some significant information could still be derived from them.

In 1867, Byron Taggart, then owner of the original "home farm," sold his 125-acre farm to Porter Rogers. Rogers and his wife Susan were in their fifties at the time of the purchase. Their household was shared by their son Albert, his wife Alace, and a granddaughter. The Rogerses stayed on the property until 1883, when Susan, by then a widow, sold it to Eugene Hibbard.

The tenancy of the Hibbard family is interesting for two reasons. One is that instead of raising dairy cattle, they elected to farm turkeys and, for a while, foxes, neither of which was a typical activity in the area. The other is that between 1890 and 1940, the Hibbards took, and preserved, photographs.

FIGURE 50



Photograph of the Benway/Conway Farmhouse in about 1941, after its abandonment, looking west. The house front and porch are at left.

IN 1850

- *President Zachary Taylor dies in office (of typhoid fever) and is succeeded by his Vice President, Millard Fillmore.*
- *There are 9,000 miles of railroad track in the U.S.A., 3,600 miles of canals.*
- *Bavarian-American Levi Strauss introduces "bibless overalls," later called blue jeans.*
- *Half of the children born in the U.S. will die before the age of five.*
- *Founding of the University of Rochester, New York.*
- *The Jersey cow is introduced into the U.S., helping farmers increase their butter production.*
- *Last year, the discovery of gold in California spurred the continuing westward dash of the "Forty-Niners."*
- *In China, there is a revolt against the Manchu Dynasty.*

Portrait: The Benway/Conway Farm

Halfway between George Fredenburgh's farm near Pearl Street and the Cooper and Taggart farms on Bedlam Road, on what would later be called Conway Road, sat the farmstead of Moses Benway. The farm was on land first acquired by James Leray de Chaumont and bought in 1805 by William Cooper, Sr. who later added two smaller parcels to it and left it to his son Victor. Neither Cooper ever lived there; instead, the land seems to have been acquired as an investment.

FIGURE 51

COURTESY OF THE JEFFERSON COUNTY HISTORICAL SOCIETY

Portrait of James Benway in Civil War uniform.

Moses Benway did not formally buy the farm from Victor and Sarah Cooper until 1856, but he and his wife Pricilla were living there (presumably as tenants) by 1850.

Both Moses and Pricilla had been born in Canada, and so had their three oldest children, Moses (II), George, and Lina. John, James, Eliza Jane, and six-month-old Philemon were American-born, and since John, the eldest of this group, was ten in 1850, it seems the Benways had been in the United States, though not necessarily in the North Country, at least ten years earlier. The chance survival of a photograph of James Benway in Civil War uniform gives us our only known portrait of a member of a Fort Drum farm family *(above)*.

By 1855, the farm had grown from its original 148 acres to 173 acres, of which seventy-four were improved. It was valued at $2,500 and was producing not only the usual quantities of oats, barley, wheat, and Indian corn, but 2,000 pounds of butter, and 150 pounds of maple sugar (plus the four gallons of maple syrup and twelve dollars' worth of eggs that were also carefully enumerated). This may, however, have been a bad year for the Benway potatoes—the harvest was only twelve-and-a-half bushels, in contrast to ninety in 1850 and 100 in 1860. The fact that there was no general blight is attested to by the undiminished harvests of the Fredenburghs, Coopers, Taggarts, Beamans and other neighbors.

Moses Benway died in or about 1861. In 1862, his widow Pricilla and the children

sold the farm to Eugene Kirpillar (also spelled Kepler). Eugene was a French native who had come to New York by way of Canada; his wife Mercyline was Canadian-born. By 1870, the Kirpillars were living at the farm with their six children and a hired hand, the Canadian-born Alexander Champaign, who was also Eugene's brother-in-law. A family tragedy occurred in 1875 with the death of the couple's eldest daughter, Eliza. By that time, census figures show, their oldest son was nineteen, old enough to help out on the farm. The household no longer included a hired hand.

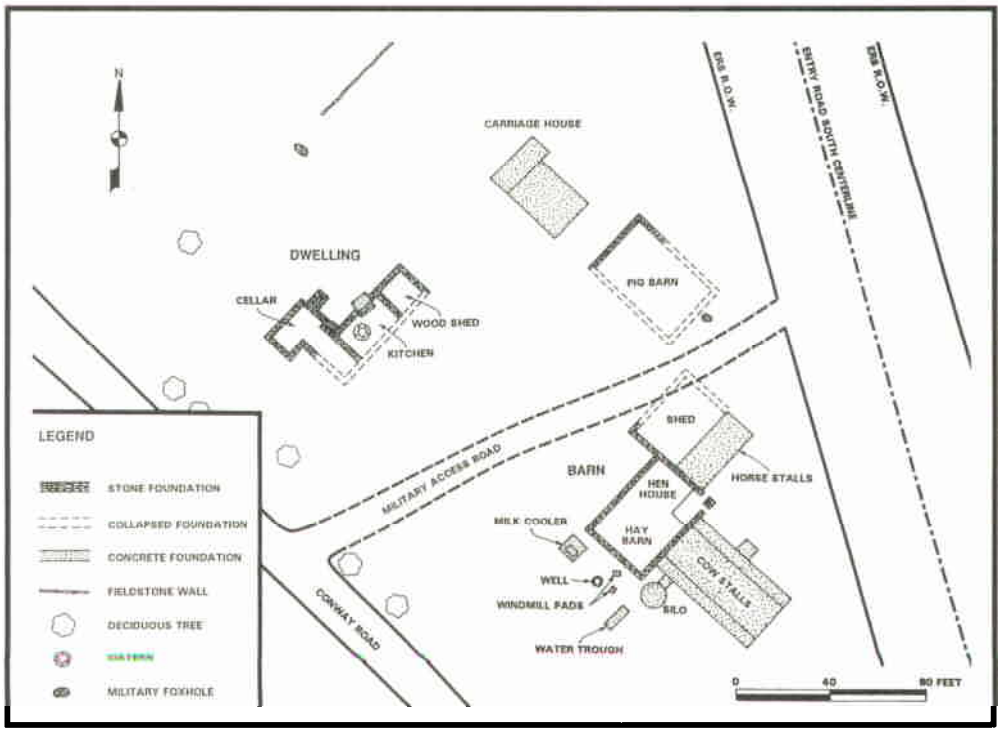
Nevertheless, by the 1880 census, Alexander Champaign had returned to the farm, after an absence in which he may have found work elsewhere or even returned to Canada for a period.

As early as 1865, the Kirpillars had made one significant change in the farm operation—they stopped making butter and began producing fluid milk instead. This was a practice instituted by many Fort Drum farmers after the Civil War, and probably for the same reason: refrigerated railway cars had made it possible to ship milk (or cheese) as far as New York and Albany without its spoiling.

In 1887, the Kirpillars sold the farm to Noel Conway. Again, the buyer was a French Canadian, and his wife Dorothy was of French Canadian parentage, although born in New York State. Theirs is the name that became attached to the road that ran past the farm, although, if prior settlement had been a consideration, the thoroughfare might well have been called Benway Road. Noel and Dorothy eventually, in 1910, left the farm for village life in Black River, where he worked as a carpenter. When the farm was deeded to the U.S. Army in 1941, it was owned, but no longer occupied, by Eugene Conway, a relative but not a direct descendant of Noel and Dorothy.

When, in the spring of 1986, archeologists arrived to test the farmstead at the Stage I

FIGURE 52



Plan view of the Benway/Conway Farmstead with outbuildings labeled according to function.

and II level, they found considerable previous disturbance. Nevertheless, there were signs that portions of the site retained valuable information in the form of well-defined buried soil layers containing artifacts. The archeologists also had an unusual advantage in the availability of an important informant, Mr. Edison Conway (son of Eugene Conway), who had lived on the farm in his youth. Mr. Conway was especially helpful in identifying the locations of a sod-roofed butter house and a granary north of the barn. The benefit of this information can be clearly seen from Figure 52, where the various structures bear labels such as Pig Barn and Hen House, rather than merely Foundation A and Foundation B, as with several other Fort Drum farms.

From the figure it may also be seen that the house formed one side of the three-sided courtyard plan that faced the road. The barn was a two-level or basement barn. Finally, the dwelling house, with its attached kitchen and woodshed, looks like the beginning of a New England attached farm complex.

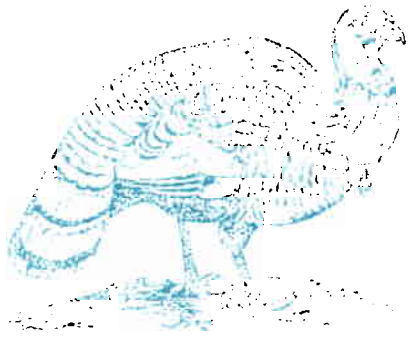
In the testing program, which was carried out through test pits, 1 x 1 meter excavation units, and limited "blading," the finds were dominated by architectural items near the barn and kitchen-related items closer to the house. No privies or wells were excavated in this limited testing.

A disappointment was that the site's degree of disturbance made it impossible to tell whether there was any substantial difference between a series of French Canadian households and a comparable series of Anglo-American households, such as were found, for example at the Taggart/Rogers and Beaman farms.

FIGURE 53

ALL PHOTOGRAPHS COURTESY OF THE HIBBARD FAMILY

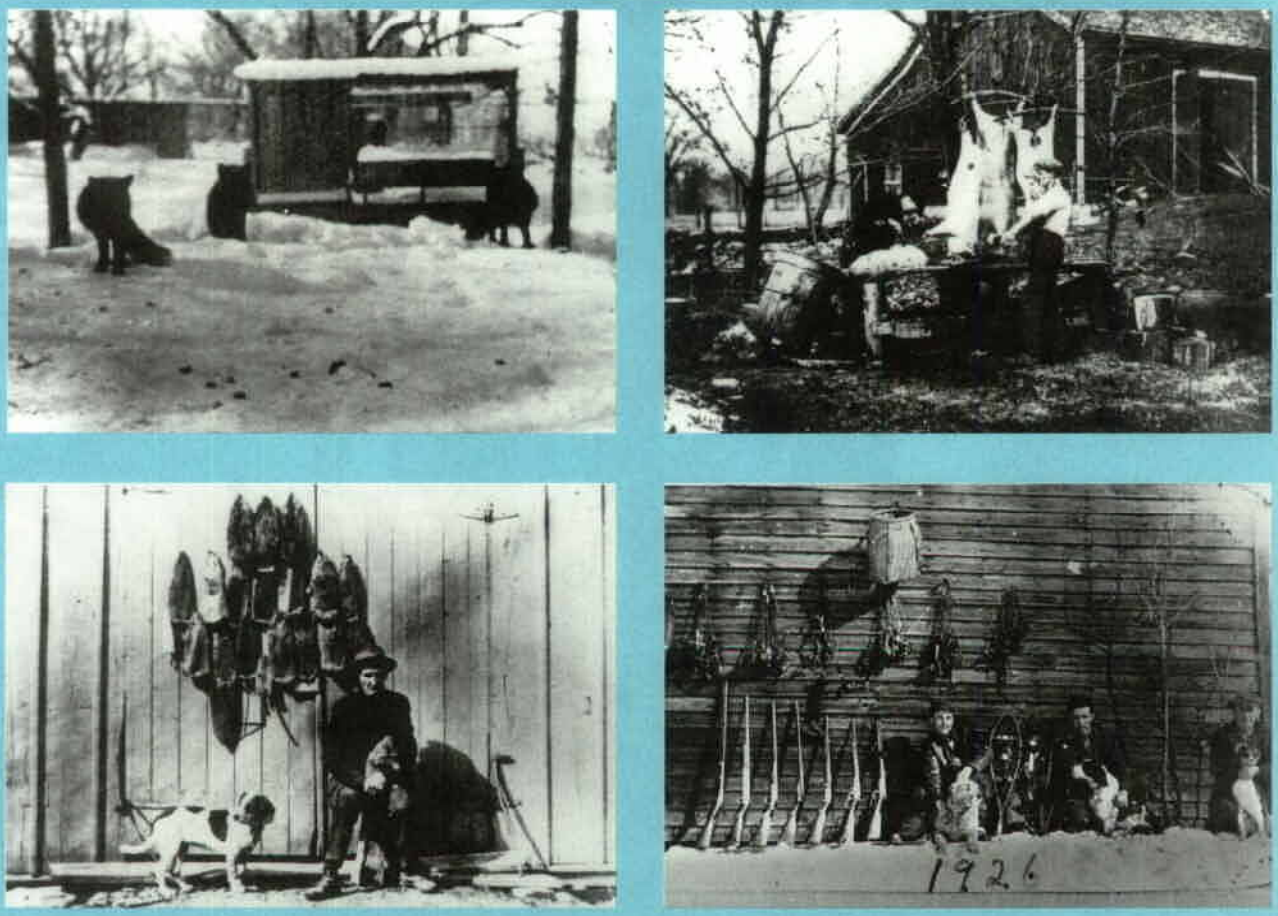
Above: **Turkeys in front of the barn at the Hibbard Farm, about 1900.** Below: **Driver's education.**



FUR AND FEATHERS: OLD TIMES AT THE HIBBARD FARM

Just as trappers and fur traders had been among the first non-Indians to frequent the Fort Drum area, so they were among the last. The forests were still thick and the winters cold enough to ensure that fur-bearing animals grew luxuriant pelts. Archeological evidence dating to the Hibbard family's time at the farm clearly showed the differences among kitchen refuse, butchering waste from domestic animals, and butchering waste related to hunting of wild species. The photographs and information from surviving members of the Hibbard family show that the Hibbards of this period were hunting deer, rabbits, squirrels, foxes, chipmunks, skunks, pheasants, owls, beaver, muskrat, and mink or weasels, whether for the table, for the fur market, or both. (The owls may merely have been regarded as pests. They were probably not for the pot, judging from the prevalence of the rural expression, "tougher than boiled owl." The skunks were hunted for their pelts, but not for the pot.) Conspicuous by its absence from this list is the raccoon, but it hardly seems likely the Hibbards would have ignored this common fur-bearing creature. Much of the hunting was evidently done in the winter, as shown by the clothing and snow in the photographs. Also visible in the photographs are several farm outbuildings.

FIGURE 54



Top left: Eugene Hibbard's silver fox pens. Top right: The butchering site. Bottom left: Beaver and muskrat pelts hang on the barn door. Bottom right: The hunter's equipment: skis, snowshoes, dogs, guns, traps.

ALL PHOTOGRAPHS COURTESY OF THE HIBBARD FAMILY

PART THREE

"Free and Independent"

"A FARMER DEPENDS ON HIMSELF, AND THE LAND AND THE weather. If you're a farmer, you raise what you eat, you raise what you wear, and you keep warm with wood out of your own timber. You work hard, but you work as you please, and no man can tell you to go or come. You'll be free and independent, son, on a farm."

This quotation comes from *Farmer Boy*, one of Laura Ingalls Wilder's well-known accounts of farm life in the American nineteenth century. The book tells of the boyhood of Almanzo Wilder, who grew up to marry Laura Ingalls, the girl who once lived in a little house on the prairie. In the 1860s, Almanzo's family, the Wilders, lived on a farm near Malone, Franklin County, New York, only about a hundred miles north-northeast of Fort Drum. In the quotation above, young Almanzo's father has asked him whether he wishes to be apprenticed to a wagon maker whose name, coincidentally, is Mr. Paddock. "With Paddock," says Father, "you'd have an easy life, in some ways. You wouldn't be out in all kinds of weather. . . . You'd be . . . inside walls. . . . But there's the other side, too, Almanzo. You'd have to depend on other folks, son, in town." And even though his older brother, Royal, has already opted to become a storekeeper, Almanzo makes his choice right there and then—he will stay on the farm and be "free and independent." This is exactly the sort of sentiment that perhaps motivated David Beaman, the devoted elder brother, who, as we may remember, preferred farming to being apprenticed to a hatter. Perhaps a part of his motivation was that a farm provided a better setting for his widowed mother and dependent siblings.

The results of the archeology project, coupled with the information from the store journals, clearly showed that, like the Malone farmers, the farmers of the Fort Drum area were intent on developing a way of life that was above all self-sufficient, where a degree of comfort was achieved through frugality, hard work, and a willingness to make do.

Chores

As we can see from the farm portraits presented above, the Fort Drum farmers as a group employed little outside labor. The small numbers of farm hands and cheese makers supplemented, rather than replacing, the labor of the family members, from toddlers on up.

In *Farmer Boy,* Almanzo and his brother and sisters are shown performing all manner of chores: cleaning, polishing, whitewashing (like Tom Sawyer), weeding, hoeing, sowing vegetables, berrying, milking, currying, shucking, watering, training a pair of young plow oxen, hauling wood, and helping with the maple sugaring. Mother not only cooks, preserves, cleans, and sews, but spins and weaves wool, knits, makes straw hats, soap and candles, and takes care of the sick, while Father (assisted by Royal) has charge of all the heavy farm work including plowing, planting, harrowing, sheep shearing, fertilizing,

harvesting, haying, baling, threshing, hauling, shingling, ice cutting, stock management, and repairs. He also conducts the family business such as selling the crops and young horses. Significantly, however, Mother is shown performing one additional task whose relevance is already obvious to us: Mother alone makes the butter, and she is justly proud of her skill.

Hey, Ho the Dairy, O!

In the year-long course of the book, the butter buyer comes to the area once, all the way from New York City, and pays Mrs. Wilder a "very good price" for her 500 pounds of butter. That is less butter than that produced by any of our six farm families in the sample year of 1855, except for the Nellises, who made no butter at all. However, it would have been a nice piece of cash income for the Wilders, whose other profitable sideline was raising horses.

The documentary studies at Fort Drum showed that the average size of a farm family between 1850 and 1880 was from four to six people, so that the Wilder family's labor force, with two parents and four children, was quite typical. It has been suggested, on the basis of this labor situation and a study of the data about home manufactures, that farm wives may have begun making less homespun cloth after the advent of readily available and affordable machine-woven textiles in the 1850s. As a result, they had more time to devote to the making of butter and cheese, a very effective way to use the labor of women (probably assisted by any grown daughters, elders, or young children). A counter-argument points out that dairying (at least before the advent of silage) was done in the spring, summer, and fall, while spinning and weaving were ideally suited to the winter months. In either case, the fact is that the labor of women came to constitute a significant part of the farms' profit-making operations.

The situation might have been different if there had been any opportunity for employment outside the home, but such work, especially for women, was hard to come by.

We may remember that Victor Cooper's widowed daughter Olive is mentioned above as having gone to work in a local cheese factory, while the unmarried Alice Beaman sold ladies' furnishings, but they were clearly exceptions, and rather late ones at that. More typical would have been Amanda and Caroline Fredenburgh, Catherine Mosher (the probable in-law of the Beamans), and perhaps even the aged Catherine Mosely (presumed relation of the Fredenburghs). Even though they had few opportunities for non-farm employment, these adult women were able to contribute usefully to the farms' dairying operations, and this fact surely served to raise the status of women as productive members of the household.

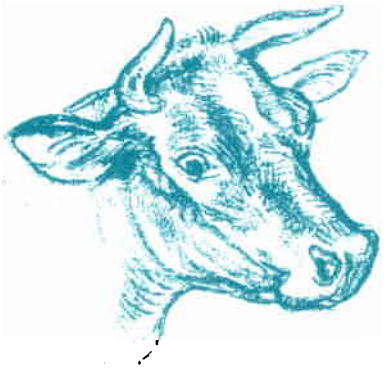
In 1861, a committee of the New York Agricultural Society made a visit to a model farm operated in LeRay town by a Mr. and Mrs. Amos Goulding. Amos conducted the committee on its tour and spoke for the farm, but a substantial amount of the committee's praise and attention focussed on his wife. "Everything appurtaining to this dairy, in short,

"HOW YOU GONNA KEEP THEM DOWN ON THE FARM?"

It is considered a cliche of American history in the nineteenth century that population shifted from the farms to the cities. This may have been the case over all, but it does not seem to have applied to the North Country. Studies of the area clearly show that although many people (like George Beaman, Alonzo Beaman, William Cooper, III and Sidney Cooper) left the Fort Drum farms, they tended to end up not in eastern cities but on other farms further west. (A contrast is Edward Cooper, who ultimately settled in Chicago.)

Watertown's period of greatest growth, and employment opportunity, did not take place until after 1880, and even then it seems most of its jobs went to immigrant men, rather than to local farm women.

every article and place, which came under the care of Mrs. Goulding, showed the marks of a system, industry, and economy; from the kitchen to the cellar, everything was the same, a perfect model of neatness and good husbandry." The committee added that it was tempted to award a separate certificate to Mrs. Goulding for "the manufacture of this superior dairy, and pattern of good housewifery."



Boarders and Hired Hands

In the farm portraits above, we saw several examples of foreign-born boarders and hands. Nevertheless, the majority of boarders were local, and they were usually in their teens and twenties. This was evidently an accepted method of "making one's way in the world" for young people, especially younger sons who did not expect to inherit the family farm. In 1855, most (62%) of the Fort Drum boarders had been born in New York State, the remainder coming from Massachusetts, New Hampshire, Michigan, Canada (14%), and Ireland (10%). Ten years later, in 1865, we might expect the picture to be obscured by the absence of young men serving with the Union Armies, and indeed the actual number of boarders was down. Nevertheless, the percentage of boarders born in New York (57%) was not substantially changed, although by 1875 it had risen to 72%.

In general, we can see that the Fort Drum farm families were self-sufficient in labor, although there was unquestionably some sharing among farms and communities. Another important point in considering the farms as economic units is that mechanization came late to dairying, as opposed to crop farming. The reaping machine had been introduced by mid-century and was undoubtedly used by some local farmers, but the power churn and milking machine were not widely available until the close of the century.

Farm crops in this region remained quite stable over time as to variety. Almost everyone grew some combination of oats, barley, corn, potatoes, and wheat, plus cattle and pigs, no matter what the size of the farm, nor did farm sizes increase greatly until about 1870. At no time were there any farms in the sample over 500 improved acres, which suggests that this is a maximum beyond which it was not possible to work a family farm with the technology available at the time. There were also very few farms of less than 20 improved acres. In these terms, Victor Cooper's farm, at ninety-seven improved acres, was only of average size, but he may have been benefitting from the support (and milk production) of his brother William, Jr. At the same time, New York State butter prices rose irregularly from fourteen cents a pound in 1841 to thirty-eight cents by 1866, while cheese prices started low at six cents a pound in 1841 but reached twenty cents in 1866. Small farms, less than forty-nine improved acres, specialized in butter, as opposed to cheese.

The figures show that in general the Fort Drum farms were self-sufficient in grains, both for human and animal consumption, although individual farms may not always have been self-sufficient in every crop, since the figures refer to the regional rather than

COWS AND WOMEN

The prevailing view of the farm wife was not all flattering. In one of the most unintentionally hilarious pieces of nineteenth-century rhetoric ever, an individual named J. Stanton Gould told the Jefferson County Agricultural Society in 1863:

Every man who has ever had a wife or a mother . . . knows the difference between one who is nervous and fidgety, and one who is calm, equitable, good natured, and so ignorant of anatomy that she does not know that she has such organs as nerves in her frame. Farmers with wives of the latter class have much happier homes and lay up more money than those whose wives belong to the other. It is with cows just as it is with women. A nervous, fidgety cow is a nuisance; and a quiet, peaceable cow that takes everything easy is a pearl of great price . . . .

What Sarah Cooper, Elvira Cooper, Paulina Taggart, Sally Ann Beaman and Pricilla Benway might have said about this pronouncement can only be imagined.

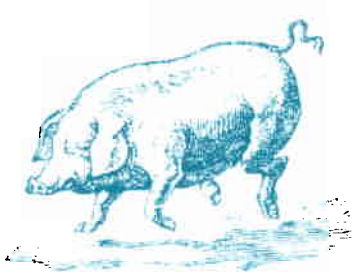
the individual supply. When it came to profitability, the advantage enjoyed by the larger farms (over forty-nine improved acres) appeared related to their possession of more meadow lands rather than more pasture, plowed acreage, or even dairy cows. This was because the success of a farm depended to a large extent on the farmer's ability to carry his or her animals through the winter, and the extra meadow was used to produce more hay for winter feed. The hay meadow was in effect an insurance policy against hard times.

Interestingly, the Fort Drum farms were far more profitable in terms of butter sales than the general category of farms in the Northeast. Other published estimates, calculated for the year 1860, put the average farm profit at $43, whereas the Fort Drum farms averaged a potential butter profit of $145. Since the 1860 figure for average northeastern farm income as a whole was $897 for owner-occupied and $646 for tenant farms, it seems clear that as much as 17% of the total farm income came from butter sales. For comparison, the national per capita income in 1860 was only $180. Clearly, the farm families of Fort Drum were not doing too badly. Nor was butter the only source of profit among the North Country farmers. Barley, wheat, and pork also produced profitable surpluses, over all.

This Little Piggy

The role of pork at the Fort Drum farms deserves special comment. The archeology project uncovered many thousands of butchered bones from several sites, which were analyzed in detail in order to examine what animals were eaten, what were the seasons of slaughter, butchering methods, and other matters. The most notable finding was that almost without exception the farm families ate more pork than any other meat. At the William, Sr./Victor Cooper Farmstead, for example, nearly 22% of the identified bones were pork bones, as compared to just over 10% chicken, just under 10% beef, and much smaller percentages of lamb or mutton, turkey, and horse. (In the latter connection, it might be noted that the Cooper family was French in origin and the French have historically not shared the English prejudice against eating horse meat.)

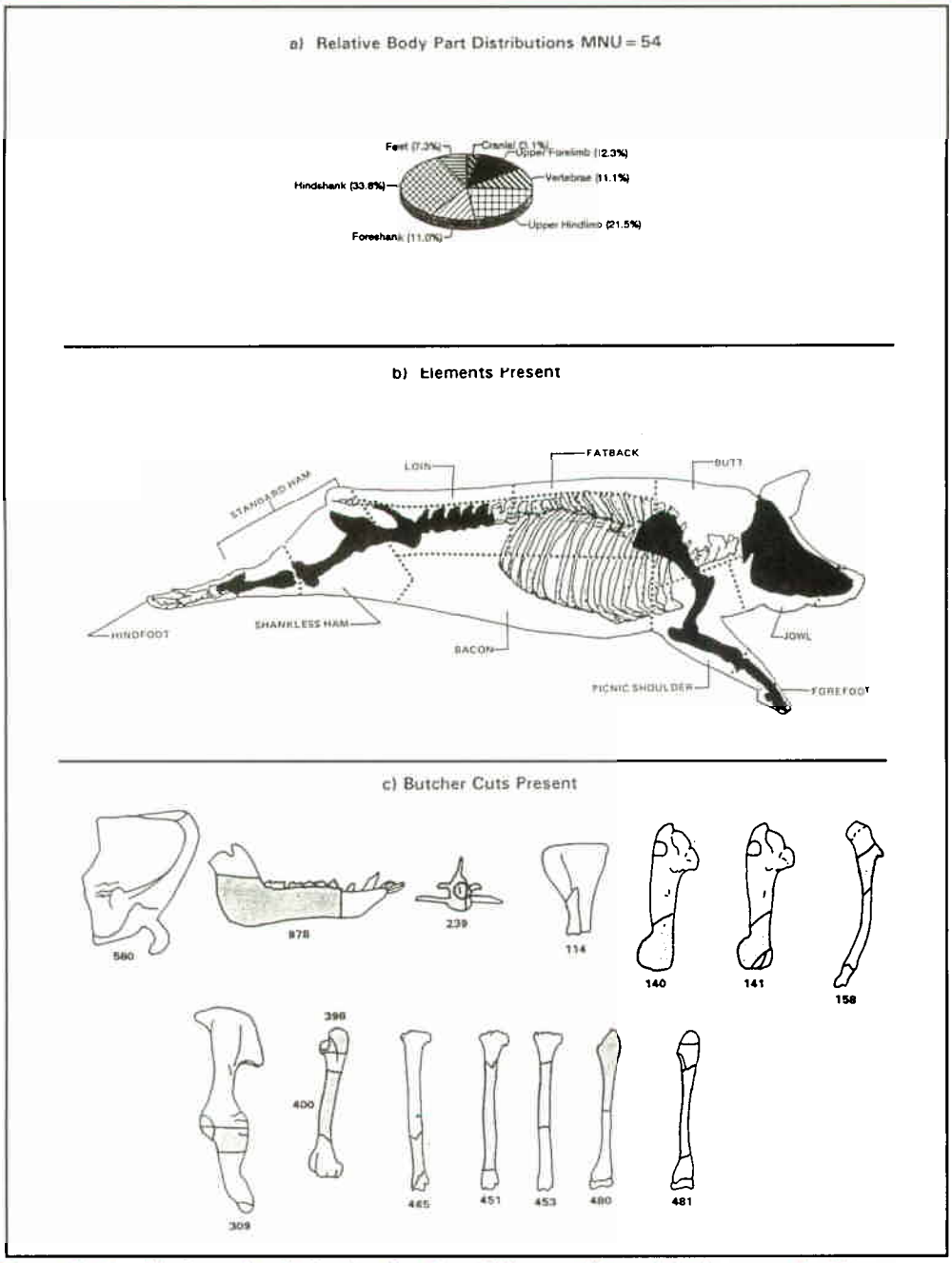
At the Beaman Farmstead also, pork was the most commonly eaten meat, but it was followed is this case by lamb or mutton. As it happens, this is to be expected from the Beamans' agricultural data, since they kept more sheep than any of the families in the farm portraits—in every year except 1855, which was the sample year chosen for the table on page 57. For any one of a dozen possible reasons, including simple error, the Beamans were recorded as having twenty-three sheep in 1850, twelve in 1860, and twenty-two in 1865, but no sheep in 1855. Historians have to get used to such irregularities in their data.



The pig is an interesting animal because although it has hooflike trotters, it does not graze or browse like the cow, sheep, goat, and horse. Instead, as farmers know well, pigs will eat nearly anything humans will eat, including boiled potatoes, chicken pot pie, and leftover layer cake. In a dairy farm setting, healthy pigs can be raised on a basic diet of milk byproducts and table leftovers, which cost the farmer almost nothing.

The Fort Drum archeology showed that slaughtering was done in the spring for the purpose of culling the herds, in the fall to provide meat for the winter, and on random occasions as the family needed meat. None of the farms kept many non-essential cattle, so that bull calves would tend to be slaughtered for veal but few others would be sacrificed to

FIGURE 55



Example of a diagram showing cuts of pork and the way they relate to excavated bone remains. This one comes from the David Beaman Farmstead. The designation MNU=54 at the top refers to the minimum number of (bone) units, meaning that at least 54 individual bones must have been represented by the fragments found.

the table unless there was a specific need. Both dairy cows and plow oxen were too valuable to be eaten.

Instead, the preference was for useful and inexpensive pork, most of which was salted, smoked, or pickled on the spot in order to preserve it in the days before refrigeration. Some of this pork made its way into the Paddock's Store journals as hams, hocks, or picnic shoulders. The Paddocks bought as well as sold, so that a typical customer might bring in a ham or a dozen eggs for resale on the same day he or she bought a hoe or a pound of

sugar. When Victor Cooper came to Paddock's on December 21, 1848, he sold $32.04 worth of pork and paid off a $19.49 bill of his father's.

We might note in connection with this late December transaction that Victor does not appear to have been buying Christmas gifts, which in those days were relatively minor items. On the Christmas Day when Almanzo Wilder was nine years old, his stocking contained a nickel's worth of horehound candy, a packet of dried figs, a jackknife, and (oh, marvelous!) a store-bought cloth cap.

IN 1855

- *Franklin Pierce is President.*
- *The Sault St. Marie Canal links Lakes Huron and Superior, providing shipping with access to (among other resources) iron ore from Michigan. Next year, Henry Bessemer will implement the "hot blast" iron process that bears his name, making obsolete most of the "cold blast" furnaces in the North Country.*
- *An 821-foot suspension bridge is built across the Niagara gorge.*
- *John Deere hires his first salesman to market his "ploughs and agricultural equipment."*
- *The U.S. now exports 16 million bushels of wheat.*
- *400,000 immigrants will pass through New York's Castle Island this year.*
- *Gail Borden patents his condensed milk process.*
- *The first U.S. institution to grant higher education degrees to women is New York's Elmira Female College.*
- *Publication of Bartlett's* Familiar Quotations *and poet Walt Whitman's* Leaves of Grass.

Linens and Redware

In considering the evidence from Paddock's Store, the LBA historians and archeologists were taking into account a certain amount of previous research on the goods that went with domestic life in centuries past. Other studies had suggested that in the seventeenth and into the eighteenth century, the most valuable durable goods possessed by average households were classified as bedding, meaning linens, mattresses, covers, and hangings. Also widely distributed was a type of coarse earthenware pottery known to archeologists as redware. This was the "Mel-Mac" of its day—relatively cheap and utilitarian. The historic figures were derived from probate inventories, which were the lists of household goods made after a person's death so that the goods might be fairly divided among the heirs.

By the middle of the eighteenth century, a change was beginning to be visible in the probate inventories, both English and Colonial, as other types of goods appeared with increasing frequency. By the eve of the American Revolution, more elaborate tablewares (pottery and china), tea services, furniture, and even musical instruments began to appear regularly in households that were not those of the wealthy. This followed a familiar pattern in which the elite acquire a class of objects that later come to be seen as virtual necessities. (Television sets would be a modern example.)

In a different study, one previously performed by Louis Berger & Associates on data from rural northern New Jersey between 1795 and 1815, it appeared that farmers, in particular, were less likely than others to put their money into consumer goods and more likely to invest in expanded farm acreage, more farm animals, or additions to the farmhouse. This was the background against which the LBA archeologists were prepared to project the picture pieced together from the Paddock journals.

To Market, To Market . . .

The Paddock's Store customers of 1848 to 1851 (the period reflected by the journals), went to some considerable trouble to go there *(see page 40)*. Many lived ten to fifteen miles away, and there were other stores closer to them, in the villages like Sanfords Corners, Evans Mills, Antwerp, and LeRaysville. Yet they got into their wagons and drove to Watertown. William Cooper, Jr. came to the store nearly every week or every other week, on average. Paddock's must have had a real attraction in the form of better variety or lower prices or both.

The busiest day at the store was Saturday, the quietest was Monday. More surprising, business was briskest in early summer, when one might have thought every hand was required in the fields. Spring was least popular for shopping (muddy roads? planting time?), autumn and winter were in between (despite the depth of the winter snow).

Most transactions were small (69% were under $10) and most (92%) were on credit. This is to be expected, given the seasonal nature of farming, even today. Planting was done in the spring; the traveling brokers such as the one who bought Mother Wilder's butter and others who bought hay and grain generally came in the fall. And that was in a good year. Unusual frost, drought, hail, floods, wind, disease, insects or other disasters could cause a farm family to lose all or part of its crop. However, the seeds of the modern attitude to credit are evident in the journals: for example, on March 27, 1848, Alvah Scofield was charged forty cents interest on his outstanding account.

Throughout the period covered by the journals, there were certain patterns of sales at Paddock's that remained fairly constant. The largest number of transactions pertained to textiles and clothing. The items involved were thin, washable cotton cloth, with names like dimity, calico, lawn, and cambric; manufactured apparel such as hats, cravats, hosiery, and gloves; and thread or yarn. The next largest category was coffee, tea, and cocoa. Between the dates of the two sets of journals (1839 and the late 1840s), tobacco and snuff products fell dramatically in popularity, from 14% to 5% of transactions, while sugar, spices, honey and molasses edged upward to top the coffee-tea-cocoa category. Another category that maintained a high popularity was notions, meaning laces, braids, trims, whalebone (for stiffening), ribbon, fringe, and so on.

"Baubles, Bangles, and Beads"

Even at first glance, it is evident that the farmers of the North Country were not buying items they could have made at home or procured from a traveling craftsman. The Wilder family bought its shoes once a year when the shoemaker came by and fitted the family at home. They also bought their pots, pans, colanders, steamers, graters, and even some toys from the tin peddler in his bright red wagon. In contrast, things bought at Paddock's were generally manufactured or grown outside the immediate vicinity, sometimes (as with the sugar, spices, coffee, tea, and cocoa) in exotic places with names like Ceylon, India, Brazil, and the Indies (East or West).

Topping the purchase list at Paddock's was thin cotton cloth, but here an interesting fact is to be noted. Comparatively few cloth purchases were large enough to have provided a woman with an entirely new dress. Just at this time, the amount of fabric required for a single gown was rising, from five square yards in 1800 to 30 or 40 square yards in 1855. Yet nearly all purchases (88%) in the later journal were for fifteen yards or less.

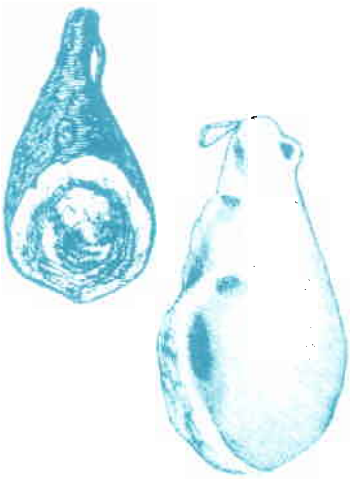
These shorter lengths of cloth may sometimes have been used for children's clothes or men's shirts, but the more obvious explanation is that farm wives and daughters were making over their old gowns with new styles and trimmings, rather than making new ones. Many of us remember Charles Dickens' *A Christmas Carol* (published in 1843), in which one member of the needy but loving Cratchit family is Miss Belinda Cratchit, "in a twice-turned gown, but brave with ribbons." To "turn" a garment meant to unpick the seams and sew it back together so that the unfaded side of the fabric faced out. Add some new buttons, a little lace at the collar, or perhaps some smart black French braid, and who would know it was the same old blue gown?

In 1839, Henry Taggart came to Paddock's and bought a bonnet, an artificial flower, two yards of ribbon, eight yards of calico, nine yards of gingham, a scarf, and a pair of gloves. Let us hope Paulina was delighted. She would be widowed before the year was out.

Such woolens as were sold at Paddock's tended to be exotic or of extra-high quality (alpaca, broadcloth, tweed, mohair). The inference is that, like Mother Wilder, most women still wove their own "homespun" woolens for everyday family use. In 1850, the average Fort Drum farm had eleven sheep.

Also in demand at Paddock's, but at a much lower rate, were other heavy fabrics such as duck, drill, and canvas, together with medium-weight fabrics such as shirting and sheeting. (Some of these latter may have been used for home decoration in the form of curtains, pillow shams, and the like.) Luxury fabrics such as velvet, silk, and taffeta were bought relatively rarely and in short lengths, as if to be used for trimming or enhancing complete garments.

Food and Drink



Not surprisingly, the Fort Drum farmers rarely bought any foodstuffs of types grown locally. Flour almost never appeared in the journals because farmers would have had their wheat custom-ground at one of the local gristmills such as the one at Wood's Mill. Even among the non-local products bought, there were great variations. Tea was bought far oftener than either coffee or cocoa, while over 45% of all food transactions involved cane sugar, notwithstanding the thriving local maple-sugar industry. Salt was also purchased in quantity, probably for curing meats and pickling vegetables. Dried fish was the only meat commodity that was both in wide demand and not produced on the farms.

The researchers were surprised at one result of their food-purchase study. Previous writers had found that meat preferences were discernibly regional: pork in the South, lamb or mutton in the Southwest and Northeast, and beef in the Northeast. (Poultry, it seems, was eaten everywhere.) However, as we already know from the archeology results mentioned above, the Fort Drum farmers were both eating and selling pork in preference to any other meat. In fact, the Paddock's journals recorded only one transaction involving beef. With respect to the pork products bought by Paddock's, it is clear that the intent was to resell in nearby population centers such as Albany, Utica, Syracuse, New York, or Watertown itself.

The subject of butter and cheese has already been discussed at some length. Paddock's did buy and sell both items, and the sales occurred at all seasons, peaking in the early summer. Sales volumes were comparatively low, however. The inference is that most farm wives sold their butter to traveling buyers, just as Mother Wilder did, while the large cheese makers such as the Coopers were also selling to regional wholesalers, probably direct from the factory.

With the exception of salt, which was clearly a necessity of life and for which elaborate trade mechanisms have been in place since ancient times, the foodstuffs most often bought by the Fort Drum farmers could be classified as amenities — flavorings, condiments, beverages, and sweets. Other food items bought, though much less often (5% of purchases or less), included fruits and vegetables, both local and exotic (from apples to pineapples), seed, rice, crackers, nuts, beer, whisky, brandy, and cider.

Hard Goods

Under this heading is a rather wide array of objects for use in the fields, barn, kitchen, and household.

ably be expected to show up in the archeological record at the Fort Drum farmsteads. These sixteen are beverages and medicines (bottles), tobacco/snuff (clay pipes), household equipment, dairy equipment, agricultural tools, building materials, lamp and lighting parts, mirrors, glassware, ceramics, cutlery, writing implements,combs/brushes, and two categories of notions: needles, thimbles, etc., and buttons, hooks, and fasteners.

Chelsea, Shell-Edge, and Gaudy Strawberry

Let us now look at what the archeology showed about purchases by the Fort Drum farm families. The ceramic collection from Fort Drum suggested several general conclusions. The earliest artifacts were redware, but this ceramic type was not nearly as common at Fort Drum as it has been found to be in comparable sites in (for example) Boston, possibly because this relatively cheap and early ceramic type was not manufactured locally. Such redwares as were found came from a variety of useful but not very decorative kitchen vessels, such as storage jars and broad, shallow milk pans into which milk was poured so that the cream could rise to the top for easy skimming. (The lead glaze traditionally used on redware posed something of a hazard to public health, especially for small children For this and other reasons, during the nineteenth century, redware began to be replaced in the kitchen by yellowware, tinware, and the like.)

Quite common in the ceramic collection were "teawares," meaning parts of tea sets, and "tablewares," meaning bowls and plates for the table. The Beaman family's principal set of dishes was probably the one shown at the top left in Figure 56. This is one of the most widely popular wares of the mid nineteenth century. The design at the edge looks as if it might have been impressed by a sea-shell, wherefore the pattern is called shell-edged. (Most, but not all shell-edged ceramics are pearlware.) This set had a blue edge, although green and other colors were also made. (Nearly identical blue shell-edged ceramics were found at the William, Sr./Victor Cooper Farmstead.)

In the mid-century period (probably after the widowed David Beaman's remarriage to Sally Ann Mosher), the family possessed, at a minimum, a set of handleless blue teacups in a style called sponge-decorated, a set of lavender-sprigged teaware/dinnerware in a style called Chelsea, and a similar set that sported a complicated, colorful design of fuzzy "flow blue" plantlike forms printed under the glaze from transfers, over which was a hand-painted design of pink/red strawberries and light green leaves, picked out in copper luster. Neither the Chelsea pattern nor the Gaudy Strawberry, as the latter design was called, appeared anywhere else on the Fort Drum farms, raising the possibility that they were specially ordered from outside the immediate area.

WHAT'S IN A (CERAMIC) NAME?

When archeologists talk about china, more properly called ceramics, they divide the fragments or sherds they find into broad types. The first division is between earthenware, stoneware, and porcelain. The most common coarse earthenware is redware. These types are based on aspects of the material and the temperature of the firing process that turns the wet clay into hard ceramic. Names like redware, whiteware, yellowware, and creamware refer to the color of the "body," that is the color you see in a broken edge. Thus redware looks like a broken clay flower pot inside, while the other types (all refined earthenwares) have the colors used in their names. The color of the glaze, if any, is less relevant. There are also ironstone, which is very hard and usually has a grayish body, and porcelain, made of very fine quality pure white clay. Pearlware, another of the refined earthenwares, is named for its pale bluish-white glaze, which contrasts with the more yellowish cast of the glaze in creamware.

Details of the manufacturing process are also important in classifying ceramics. Archeologists know there are thousands of types and patterns of historic ceramics found in American sites. They are important time markers because certain types or patterns were manufactured over a specific period. Pearlware, for example, was first made in 1779, replacing the earlier creamware, and went out of fashion by about 1830. An undisturbed deposit containing pearlware can therefore not be earlier than 1779, although it could be later, even considerably later, than 1830 because people tend to keep ceramics, especially nice ones, for decades or generations before they are finally broken and discarded.

The most frequently-purchased subcategory was smaller, hand-held agricultural tools such as rakes, hoes, scythes and snathes. (Large tools, such as ploughs and harrows, would have been made by the local blacksmith.) For the kitchen, there were coffee mills, for the dairy there were wooden tubs, pails, etc. The latter could not easily be made at home, but enhanced the efficiency of the farm.

"I'LL TAKE FARM TOOLS FOR $200"

Jeopardy clue: The wooden handle of a scythe.

Jeopardy answer: What is a snathe?

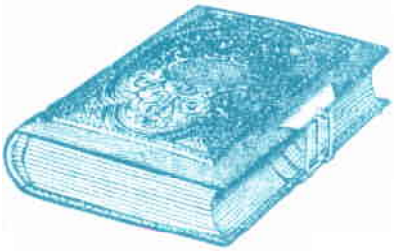
Farm wives still made tallow candles at home, but wicks and candlesticks show up in the Paddock's journals. So do ceramics, cutlery, and glassware, although in all three cases Paddock's inventories appear to have been limited, at least in comparison to those of another Watertown store, Horton, Murray & Company, on Court Street. By 1855, and perhaps earlier, Horton, Murray was advertising both imported and domestic crockery, as well as lamps, looking glasses, and cutlery for the table.

Higher Things

One category of items for which there was very little demand at Paddock's was books, writing implements, and chalk. General books, schoolbooks, and even bibles were each under 1% of the store's sales. The possible explanations are various. Clearly, the Fort Drum children were getting their "book learning," and getting it regularly, judging from the presence of schoolhouses in neighboring towns, villages, and even corners. Nevertheless, pupils typically did not own their own books. Schoolbooks were passed from one pupil to another (later in the period) or restricted to the teacher, who copied lessons on the blackboard or read them aloud. Sometimes, family schoolbooks may have been handed down from one child to the next, even between generations. This was possible in an age when the essentials of "readin', ritin', and 'rithmetic" had remained unchanged for centuries.

NOT WORTH READING

In 1857, the Jefferson County Agricultural Society voiced what may have been a widely accepted opinion at the time, judging from the poor sales of books at Paddock's. In the farmhouses of the county, "[A] few [books] with nicely bound red covers tastefully arranged on some center table. . . are allowed to lay [sic] without ever having a word read out of them because there is scarcely a word in them worth reading."



After the one-room schoolhouse, some children went on to local "academies" or high schools. Almanzo Wilder and his siblings attended Malone's Franklin Academy as boarders (a school also attended, much later, by the present writer's mother and uncle). In either case, parents were evidently not required to provide textbooks. A farm family's principal need for literacy, after all, was the keeping of accounts and records of property transactions. For the rest, the nights were long and the light was poor.

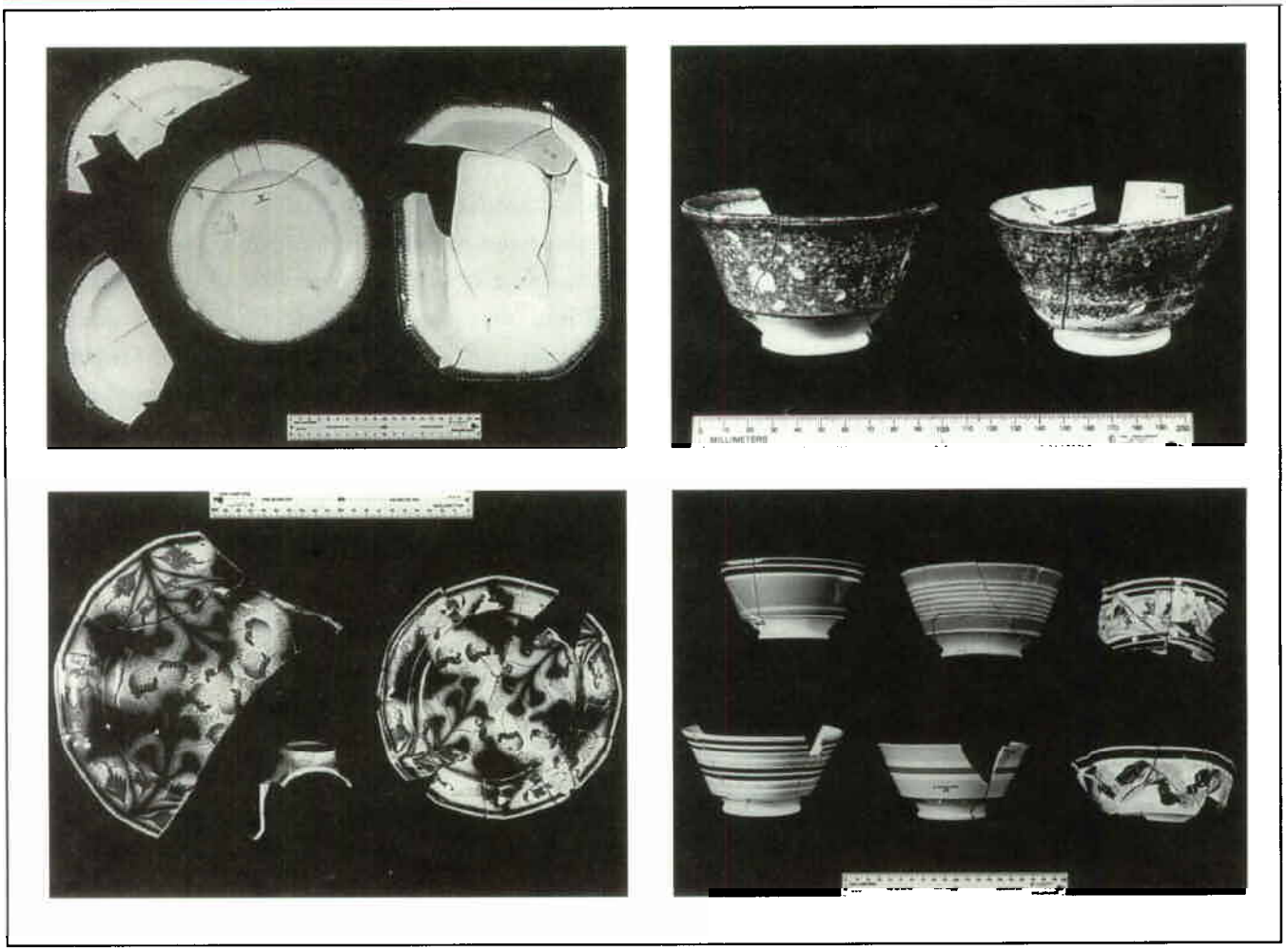
Bibles, on the other hand, may well have been handed down within families, each one with its carefully preserved record of births and deaths. Alternatively, they may have been bought from traveling salesmen.

Finally, the historians noted two other categories—tobacco/snuff and medicines (including "patent" medicines). Neither was bought very frequently, although broken white clay tobacco pipes continued to be an (increasingly infrequent) artifact class up until the Civil War.

What You See Is Not What You Get

LBA historian Amy Friedlander had divided the items sold at Paddock's Store into thirty-six categories for her study. When we look at them, we see that only sixteen could reason-

FIGURE 56

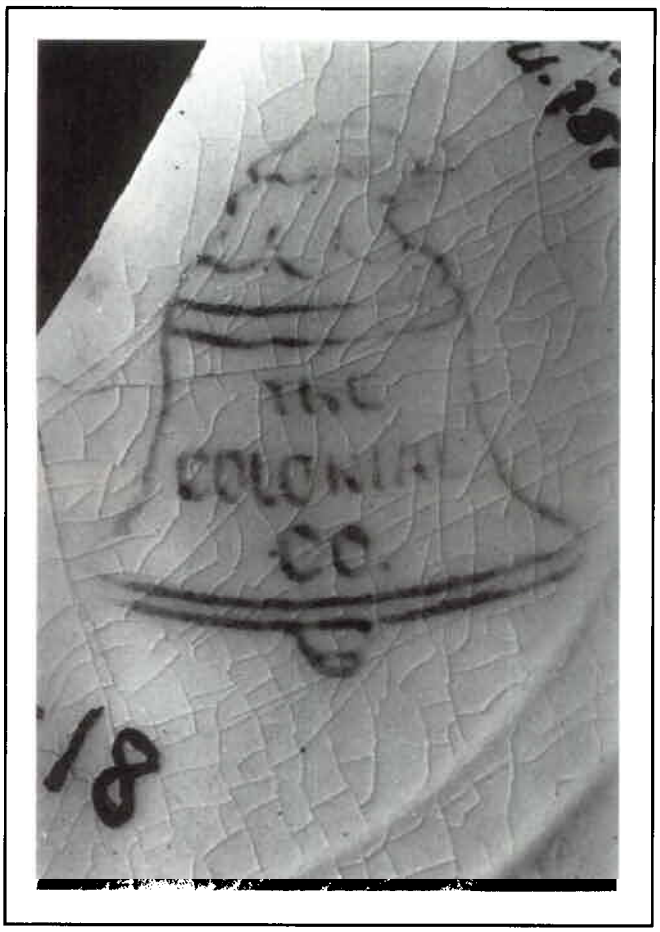


Top left: Blue shell-edged whiteware. Top right: Blue sponge-decorated handleless cups in two styles. The London shape is at left, the double-curved is at right. Bottom left: Multi-colored pieces of "Gaudy Strawberry" design. Bottom right: Small bowls in "annular" (banded) or dipped designs.

Later in the century, the family evidently replaced some or all of the shell-edged whiteware and the other sets with embossed white-on-white ironstone and whiteware. There was also some plain, unembossed whiteware and ironstone that may have been the "kitchen china" of the time. Finally, there were remains of a set of inexpensive bowls with a simple banded pattern that resulted from dipping them in glaze. These were found in the buried trash heap designated Feature 20. They showed interior wear marks made by the possible scraping of spoons, which may call to mind the hearty farm appetites of the six hungry young Beamans (Harriet, Jane, George, Alonzo, Alice and Annis) sitting down to bowls of soup or porridge.

Comparatively little porcelain was found at the farm sites, and such porcelain as was found tended to come from the later nineteenth century. Porcelain was the most expensive ceramic type of the time, whether imported from China or from Europe. We are left to speculate that the Beamans either did not buy porcelain, could not get it at local stores, or, possibly, bought it but took such good care of it that it was never broken. The absence of expensive porcelain fits well with the solidly middle-class orientation of the Fort Drum

FIGURE 57



A typical maker's mark. This one came from the Hall/Martin Farmstead. The figures at top right and bottom left are part of the LBA label.

farmers, who were, as a group, the last people to go for luxuries or "gew-gaws."

Maker's Marks

The maker's marks found on the bottoms of some ceramic fragments provided information about import patterns and trade networks. As was typical of the Fort Drum sites in general (and of much of the nation) most of the earlier marks were British. Just over 80% of the ceramic marks fell into this category. They denoted possible dates ranging from 1800 to 1940, but clustering in the middle part of the nineteenth century. By contrast, the American marks were almost all later than 1890 and originated in Ohio or New Jersey. (The single exception was a mark from the William Hart pottery in Ogdensburg, New York, which was active between 1855 and 1869.) The prevalence of English imported items was one that held true all across the Fort Drum historic sites. Most of these would have been imported through New York City, although Montreal and Boston are other possibilities.

When the American earthenware potteries began making inroads on the ceramic market, in the 1870s, there was a certain amount of deceptive marketing involved. The American maker's marks were sometimes designed to look so much like English ones that ordinary consumers would not be able to tell the difference. American makers got a boost, however, from the wave of patriotic sentiment that accompanied the United States centennial in 1876.

It is interesting to note that the close relationship between farm households of family members such as the Taggarts, the Beamans, and the Coopers was borne out by the archeology. Ceramics with the brown Tyrolean design dated 1834 to 1854 were found at both the David and Ira Beaman farms. The same was true of a set of ironstone with a design called Huron. *(See Figure 58.)* It is of course possible that both households bought sets of the same ware, but it is at least as likely that the pattern represents family borrowing or sharing: "Aunt Sally, mama asks if she can use your big brown-and-white platter on Sunday when Grampa comes to dinner."

All across Fort Drum, much the same pattern was seen: By the midpoint of the century, pearlwares and whitewares were being replaced by the "scenic" transfer-printed designs such as the Abbey and Tyrolean patterns in Figure 58. It is interesting that so many of these showed foreign places. They were almost like travel posters. They also responded to the nineteenth-century fascination with exotic places and ruins, as expressed in the stories of Edgar Allan Poe and others. Later, around the turn of century, came the fashion for deco-

TRANSFER PRINTS

Transfer printing on ceramics works much like the transfers present-day children buy or find in cereal boxes so that they can have Mickey Mouse or Barney the Dinosaur on their arms. The design is printed in ink on a thin sheet of paper that is transferred to the desired surface (skin or unfired clay) through various mechanical or chemical means.

rated whitewares or ironstones and porcelains. This succession was evident well before the opening of the Black River Canal and the arrival of the railroad, both in 1855. In other words, even at that time, the Fort Drum area was not cut off from developments in the outside world.

Smoking

Tobacco pipes made of white clay or kaolin are ceramics too, although specialized ones. (Pipes at this period were also made from wood and corn cobs.) As expected, large numbers of clay pipes and pipe fragments were found at the Fort Drum farmsteads. They came from France, Holland, and Scotland, in addition to indeterminate (and indeterminable) locations in the United States. The latter category reflects the fact that even when pipes were made in the U.S., they often did not say so, although certain marks, such as the initials TD surrounded by a ring of thirteen stars, are generally acknowledged to be of American origin. Clay pipes were extensively made in Ohio, Virginia, and North Carolina. Smaller pipe-making operations existed in New York State as well.

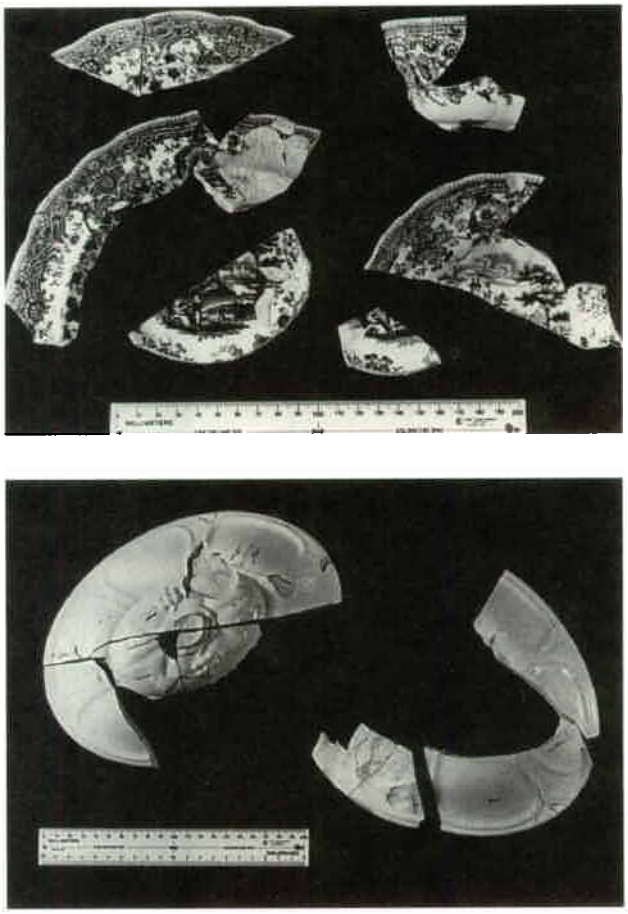
Little Things Mean a Lot

Many of the artifacts discussed here fall into various categories of furnishings, clothing-related, personal, miscellaneous kitchen items, and farm equipment. These are all things that could have been bought at Paddock's, although several of them would have come from later decades than the journals discussed above. Especially noticeable are the buttons, both pretty and plain, that relate to the Fort Drum farm women's prudent and thrifty habit of making over and retrimming their dresses.

Also included among the so-called "small finds" (but not pictured here), were items related to weapons, especially brass bullet casings. They reflected the fact that the regional centers for ammunition manufacture were in Bridgeport and New Haven, Connecticut. New weapons technology was demonstrated by the appearance of rimfire and center-fire bullets, which became available after 1857. Not surprisingly, tools and construction elements tended to originate in nearby industrial cities such as Utica, Rochester, and Syracuse.

Very few objects other than ceramics and glass came from outside the Northeast region as a whole, although there were a pharmaceutical item from St. Louis, Missouri,

FIGURE 58 Later ceramics.

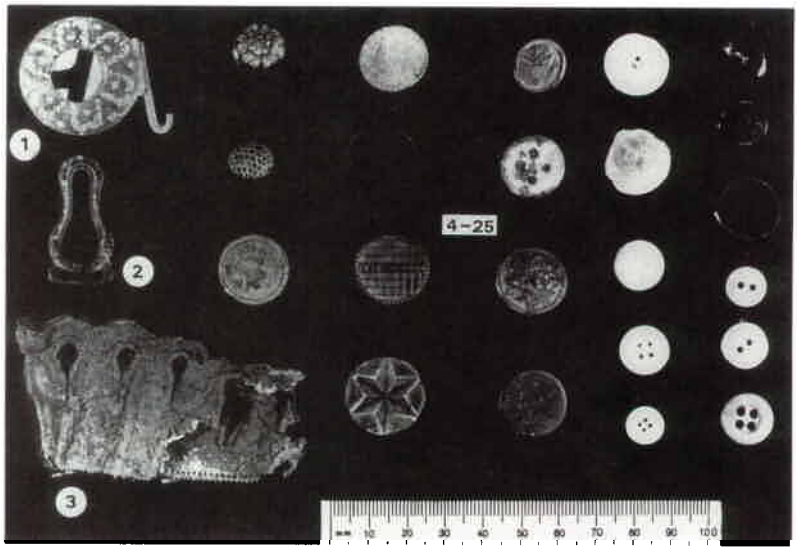


Top:
Table and tea wares made of whiteware with brown transfer-printed Tyrolean design.

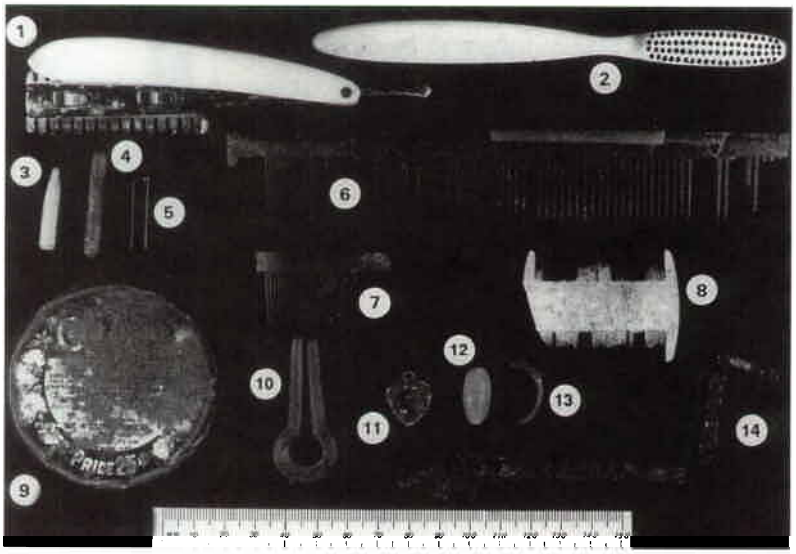
Middle:
Ironstone bowl or tureen lids in the Huron pattern.

Bottom:
Plates with a blue transfer-printed pattern called Abbey.

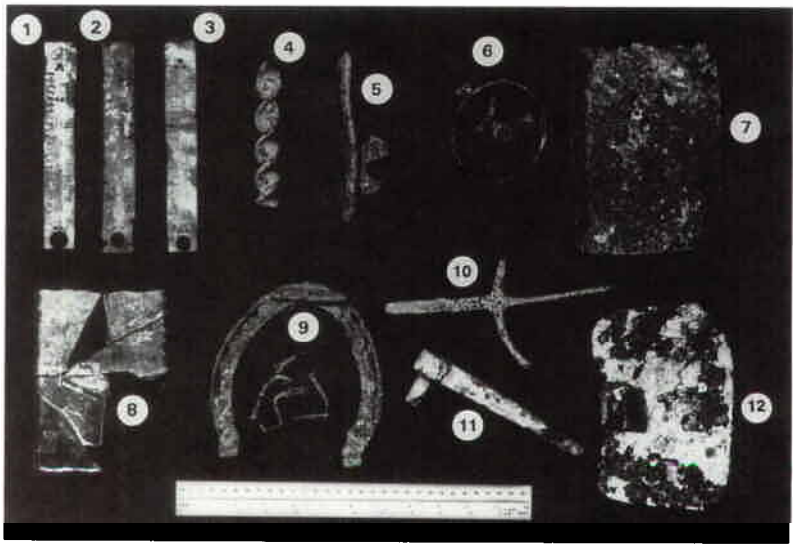
FIGURE 59 Assorted finds from the Beaman Farmstead.



Clothing-related items. From left, top to bottom, belt buckle, garter buckle and fancy leather flap from a shoe. Remaining items are buttons made of glass, metal, shell, bone, rubber, and cloth-covered filling.



Personal items. From top left, razor with celluloid handle, bone toothbrush, slate pencils, parts of three combs, ointment tin, mouth harp, silver pendant, glass bead, agate ring, and lady's purse closure.



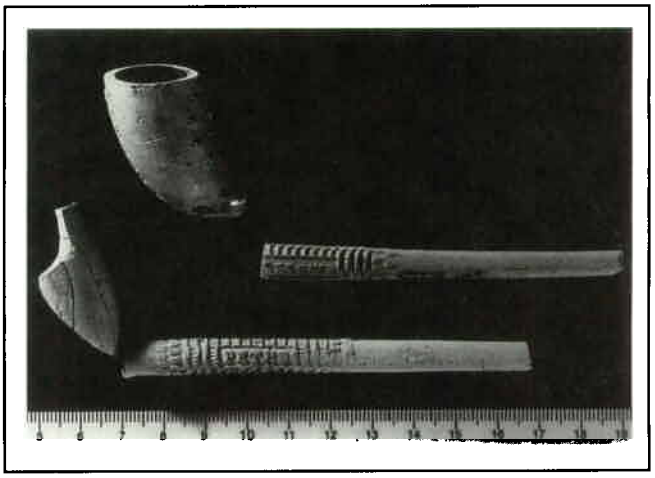
Farm equipment. From top left, dairy thermometers, auger, shoe last, pulley wheel, ash shovel, glass pig scraper (for removing bristles from the hide), horse-shoe with nails, part of a pitchfork, gate pintle, and hoe blade.

an 1835 Canadian half-penny coin, a German harmonica, and five British buttons.

Glass, Pressed and Otherwise

When it came to drinking liquids other than tea, the Fort Drum farmers were not much inclined to use special containers. There were plentiful remains of simple glass tumblers made in press molds, but fancy wine or water goblets with stems were generally conspicuous by their absence. One quite impressive stem made by a process that predated pressed glass was found in the soil that had been used to cover over the trash heap in Feature 20 at the Beaman Farmstead. This seemed to be an item that had been kept as an heirloom for quite some time, perhaps from the Beamans' earliest days at the site, while David was married to his first wife, Lucy. A later, but still handsome goblet with a cable motif is also shown in Figure 61.

FIGURE 60



White clay smoking pipes with impressed designs.

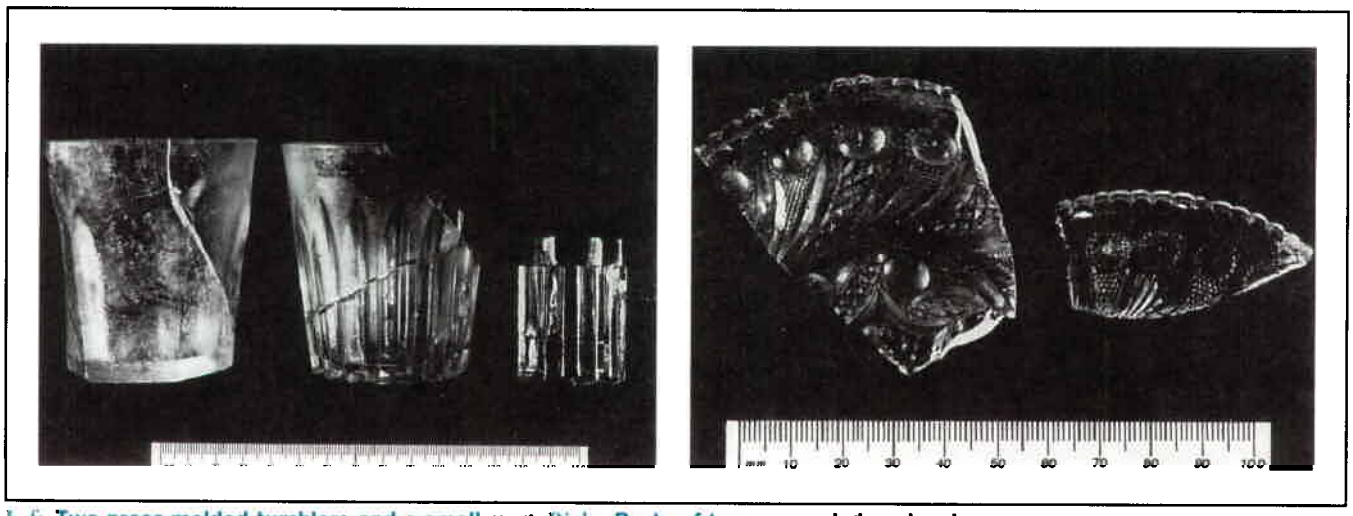
Besides drinking glasses, there were the remains of several dishes or bowls of pressed glass. The pieces in Figure 62 display a peacock-feather design.

The pattern of glass use at Fort Drum in general contrasts vividly with the very high-class life style suggested by the eighteenth- and early nineteenth-century bottle dump at the Leray Mansion, consisting almost exclusively of imported wine and brandy bottles with their distinctive "kick-ups" in the bases *(see inset, next page)*. Few if any such items were found in association with the farm households. Of the glass bottles from the farm-

FIGURE 61 Beaman glassware.

Left: **Part of a stemmed drinking glass.** Right: **Stemmed drinking glass with a press-molded cable design.**

FIGURE 62



Left: **Two press-molded tumblers and a small mug.** Right: **Parts of two pressed-glass bowls.**

BOTTLE DATES

Archeologists can tell a lot about a bottle or jar just by looking at it, especially if they have a piece of the rim. Early glassware (before about 1820) was usually "free-blown," that is, blown without a supporting mould of any kind. Free-blown bottles can be told by their slightly irregular shapes, often broad at the base to prevent tipping in transit and, in the case of wine and brandy bottles, the humps in their bases, such as survive today in many imported wine bottles. The humps are variously known as "kick-ups," "pop-ups," and "push-ups." Mould-blown bottles, which became common after 1800, can be identified by their mould lines, either vertical or horizontal. Various aspects of the bottle lips also help to refine their dating. Finally, after 1903, come machine-made bottles, often with tell-tale threaded necks for screw-on metal (much later, plastic) caps. These latter replaced the earlier corks and glass or ceramic closures held in place by some type of wire clamp, like that of the clamp-on lids still found on some so-called Mason jars, widely used in home canning.The original Mason jar, introduced in 1858, had a zinc lid with a threaded ring sealer.

Hints as to a bottle or jar's original contents can be deduced from its basic shape, if that is apparent, and much better hints can be drawn from surviving embossed lettering or labels, even when fragmentary.

steads that included embossed labels stating their contents or manufacturers, most related to pharmaceuticals or patent medicines, and were dated slightly later than the Paddock's journals (after 1850). Some of the pharmaceutical bottles had embossed lettering naming specific Antwerp pharmacies as their points of origin. Non-local products included Dr. Baxter's Mandrake Bitters, J. R. Burdsall's Arnica Liniment, and Pinex Cough Syrup. Other substances were perfume (French, in one case), cold cream, sauces, flavorings, preserves, fruits, whisky, malt, milk, blacking, oil, ink and, surprisingly, embalming fluid, not a standard household item, one supposes. Two small bottles that had contained gold paint were found at the Beaman Farmstead. They came from a comparatively late period, after the turn of the century, but are evocative of a variety of ladylike "parlor crafts," such as china painting, that were popular at that time.

It is unfortunate but not surprising that the Paddock's Store journals do not specify the patterns of ceramics or glassware sold. Thus we cannot say definitely that this or that item came from Paddock's. In the end, however, this does not matter. We are really interested in what these objects tell us about a way of life, the spirit of a certain time and place that helped to make the region what it is today.

The clear message of the Fort Drum artifacts as a whole is that market networks did not extend very far outside the Northeast until after World War One, unless they related to mail-order sales through catalogues such as Sears, Roebuck or Montgomery Ward (after 1870). The exceptions were ceramics and tobacco pipes, both of which were effectively controlled by European manufacturers until the products themselves either went out of fashion (clay pipes after the Civil War) or began to

be more widely made by domestic manufacturers (ceramics, also after the Civil War).

The ultimate observation to be made from the archeological finds at the Fort Drum farmsteads was that these farm families were solidly but not lavishly provided for and were able to buy a wide range of consumer goods while at the same time, in many cases, making substantial capital improvements to their farmhouses. They were in no way worse off than their urban counterparts in terms of access to the good things of life.

"EIGHTEEN HUNDRED AND SIXTY-ONE, THAT WAS WHEN THE WAR BEGUN"

The year 1861 saw the outbreak of the U.S. Civil War, a complex and bloody struggle centering on agriculture versus manufacturing, states' rights versus centralized government, slavery versus wage labor, and a variety of social, ethnic, and economic rivalries. In 1863, President Lincoln freed the slaves, but it was another two years before the Confederate States surrendered to the forces of the Union in 1865. With over 889,000 killed or wounded on both sides, there cannot have been a family or a neighborhood, North or South, that was not in some way touched by the war's losses.

If It Ain't Broke . . .

After the Civil War, change came less rapidly to the Fort Drum farmers than to much of the rest of the nation. Refrigerated railroad cars made it easier and more profitable in most cases to ship fluid milk to the cities than to make cheese at home. (Some cheese factories remained in operation until the 1930s, however, when the author's uncle, Fred Boomhower, remembers sharing "second-quality" cheeses with friends who worked in the cheese factory at Evans Mills.)

Underground silos gave way to the now-familiar round towers, villages waxed and waned in size according to their economic fortunes, and the advent of the automobile closed many of the district's one-room schoolhouses, brought greater freedom of movement, and ushered in the age of the commuter. The mixed dairying economy continued productive, however. Even the advent of the milking machine, though it saved labor, did not radically alter the rural way of life, nor were there major changes in house styles, barn design, or the general tenor of daily life. Mother no longer made the family's straw hats, no doubt, nor did the cobbler come once a year to make the shoes, but plowing, harrowing, milking, and haying went on much as usual. This was not because the Fort Drum farmers had been left behind by progress. On the contrary, they were able to maintain the old cycles of planting and harvest because the system still worked and there was no real need to change it. The farm families had achieved, in large measure, the ambition of Almanzo Wilder: they were, in terms of the work of their hands, "free and independent."

IN 1860

- *Abraham Lincoln is elected to replace President James Buchanan.*
- *Emperor Napoleon III rules France's Second Empire.*
- *The U.S. Civil War will begin next year.*
- *U.S. wheat crop reaches 173 million bushels, more than double the figure for 1840.*
- *U.S. population is 31.4 million.*
- *The founding of the Pony Express.*
- *First British Open golf tournament.*
- *The term "linoleum" is coined by Frederick Walton, inventor of the new flooring material.*
- *Publication of Charles Darwin's* The Origin of Species.

AFTERWORD

A Window on the Past

THE STORY OF FORT DRUM'S CULTURAL-RESOURCE PROGRAM IS BY no means complete. Although LBA is no longer involved, new discoveries continue to be made and new research continues to fill in details. Indeed, in at least one case, a whole new archeological chapter has opened up. In 1994, a Paleo-Indian site was discovered on the post and there is every likelihood that new sites of various time periods will continue to be found as the program goes on.

The cultural-resource program at Fort Drum operates through the Public Works Environmental Division in which a team of professionals reviews possible impacts of military training, construction, timber harvesting, and other environment-modifying activities. Since the primary mission of Fort Drum is military, the main purpose of the cultural-resource program is to ensure that the post is kept informed of all Federal laws and Army regulations that require the preservation and protection of cultural resources, principally through the mechanism of evaluating their eligibility for the National Register of Historic Places.

If, for example, a proposed project on the post will adversely impact eligible historic or prehistoric sites, steps will be taken to gather information about their importance and potential for preservation. These steps are part of the Section 106 process of the National Historic Preservation Act, and involve coordination and consultation with the New York State Historic Preservation Office, Native Americans, the Advisory Council on Historic Preservation, and other interested groups. On Fort Drum, eligible sites are usually protected by posting them with off-limits signs and ensuring that no wheeled or earth-moving vehicles disturb them.

Protected sites on Fort Drum include the Leray Mansion, which is the post's most famous historic structure and is listed on the National Register. Also protected are several historic archeological villages, farmsteads, grist mills, iron furnaces, cheese factories, and other sites dating to the nineteenth and twentieth centuries. Most of the historic archeological sites are indicated by foundation ruins and/or visible landscaping and are located about 100 meters from existing roads. Documentary information on these sites is quite good. Historic atlases, local histories, probate records and photographs give a vivid picture of those who used to live on the post.

Our picture of the post's prehistoric peoples is less complete because of the difficulties inherent in locating subsurface sites. Computer-generated models (see Foreword) are used to predict where intact sites are likely to occur (usually quite close to rivers, streams, or lakes). Then it is necessary to examine the soil by digging test pits to see whether it contains artifacts, fire pits, post holes, or other indications of prehistoric activity. The known sites on the post are few in number but significant. They demonstrate that Native

Americans were living there from Paleoindian to Late Woodland times, or between about 9500 B.C. and A.D. 1500. Protected sites at Fort Drum include a Paleoindian camp, several seasonal encampments of a Middle Woodland culture known as Point Peninsula, the Military Road site, and Camp Drum No. 1. *(See page ix.)*

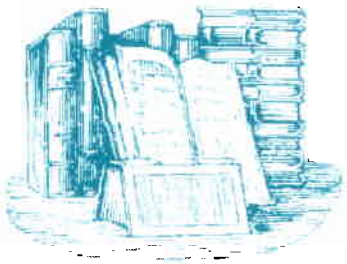
Besides fulfilling the Army's legal obligations with regard to its historic and prehistoric resources, the cultural-resource program has provided the people of the North Country with a unique window on their past. They can afford to look with pride at this record of self-sufficiency and independence that goes back to ancient times—families and kinship groups supporting one another and making a good life in a harsh environment. If we like, we may even wonder whether it was not the same environmental conditions that created both the Iroquoian longhouses and the kin-related farm clusters of the nineteenth century. Were the maize, bean, and squash farmers of the Woodland period so very different from the maize, potato and wheat farmers of later times? Was the fur-trapping Hibbard family so different from the French and Indian trappers of the seventeenth and eighteenth centuries?

Yet what has already been learned is merely a springboard to the future. Many challenges still lie ahead. Community elders, whether of Native American, African American, or European American descent, possess much invaluable information about the ways of life in days gone by, which should be collected before it is lost forever. Also lacking is oral history concerning the post itself during the World War I and World War II eras.

The artifacts excavated by Louis Berger and Associates at Fort Drum are today the property of the Federal Government, which is to say that they belong to the people of the United States. They are housed under controlled conditions in the post's newly constructed curation center, and are available for scientific study and educational use. Anyone wishing more information about the collection or the Fort Drum cultural-resource program may write to Commander, HQ 10th Mountain Division (LI) and Fort Drum, AFZS-PW-E, Fort Drum, NY 13602-5097.

APPENDIX

Suggested Readings



Esther K. Braun and David P. Braun, ***The First Peoples of the Northeast.*** Published in 1994 by the Lincoln Historical Society, Lincoln, Massachusetts. Available from the society at P.O. Box 84, Lincoln Center, MA 01773-6084. An excellent, illustrated account of Northeastern prehistory for the general reader.

Franklin B. Hough, ***History of Jefferson County in the State of New York.*** Published in 1854 by Sterling & Ridell of Watertown, New York and now out of print, but available in public libraries in the Fort Drum area. A good basic history of the county, used by many later historians.

Roger G. Kennedy, ***Orders from France: The Americans and the French in a Revolutionary World.*** Published in 1989 by Alfred A. Knopf, New York. A very readable account, including several references to James Leray and his associates.

Louis Berger & Associates, Inc. ***Small Farms Well Managed: Results of Historical Research, Fort Drum Cultural Resources Project.*** Technical Appendix to Task Order 17: Synthesis of Findings. Prepared for the U.S. Army 10th Mountain Division (Light Infantry), Fort Drum, New York, and the National Park Service, Mid-Atlantic Region, Philadelphia, Pennsylvania. Available from Commander, HQ 10th Mountain Division (LI) and Fort Drum, AFZS-PW-E, Fort Drum, New York 13602-5097.

Louis Berger & Associates, Inc. ***Cultural Resources of Fort Drum: Introduction to the Program and Synthesis of Principal Findings.*** The Fort Drum Cultural Resource Project, Task Order 17. Prepared for the U.S. Army 10th Mountain Division (Light Infantry), Fort Drum, New York, and the National Park Service, Mid-Atlantic Region, Philadelphia, Pennsylvania. Available from Commander, HQ 10th Mountain Division (LI) and Fort Drum, AFZS-PW-E, Fort Drum, NY 13602-5097.

William A. Ritchie, ***The Archaeology of New York State.*** Revised edition published in 1980 by Harbor Hill Books of Harrison, New York. A standard professional reference.

Thomas Schaeper, PhD. ***France and America in the Revolutionary Era: The Life of Jacques-Donatien Leray de Chaumont.*** Published in 1994 by Berghahn Books of Providence, Rhode Island. Much valuable and interesting information on James Leray's father, the Leray family, and Revolutionary affairs in both France and the British colonies in America.

Dean Snow, ***The Archeology of New England.*** Published in 1980 by Academic Press, Inc., New York. This is a standard professional reference on the subject. Includes eastern and northern New York State.

Laura Ingalls Wilder, ***Farmer Boy.*** Pictures by Garth Williams. Originally published in 1933 by Harper & Row, New York., and still in print today. A warm and lively account of a year on a North Country farm in the 1860s, filled with details of daily life in the period. Suitable for children. Some critics have recently suggested that the book was largely written by Laura Ingalls Wilder's daughter, rather than the well-known author herself. It does not seem to make a tremendous difference to the story, however, if Almanzo Wilder's recollections were set down by his daughter instead of his wife.

Preparation of this book was funded by a grant from the Legacy Resource Management Program, which was established by the Congress of the United States in 1991 to provide the Department of Defense with an opportunity to enhance the management of stewardship resources on more than 25 million acres of land under DoD jurisdiction.

Legacy allows the DoD to determine how to integrate the conservation of irreplaceable biological, cultural, and geophysical resources with the dynamic requirements of military missions. To achieve this goal, the DoD gives high priority to inventorying, protecting, and restoring biological, cultural, and geophysical resources in a comprehensive, cost-effective manner, in partnership with Federal, State, and local agencies and private groups.

Legacy activities help to ensure that DoD personnel better understand the need for protection and conservation of natural and cultural resources, and that the management of these resources will be fully integrated with, and support, DoD mission activities and the public interest. Through the combined efforts of DoD components, Legacy seeks to achieve its legislative purposes with cooperation, industry, and creativity, to make the DoD the Federal environmental leader.

The printing of this book was funded in part by the U.S. Army.

"If, in imagination, we set ourselves in the 1850s to overfly the future Fort Drum Reservation, perhaps in one of the hot-air balloons of the period, we will see this network of villages and corners, roads, railroads, and rivers, the latter punctuated by dams, mill ponds, and mills. We can see little plumes of smoke from the iron furnaces and from the steam engine that chuffs its way northward past Sterlingville. We may even be able to hear the train, for balloon travel is quiet. There are carts and wagons on the road, especially near the villages and mills, and the church steeples reach silently toward the sky, waiting for Sunday. Beyond all these stretches the open land dotted with farmsteads and occasional schoolhouses."